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99 Third street, Louisville, Ky.

Agricultural Fairs and Premiums.

Agricultural fairs have now become established institutions in the United States. Almost every county holds its annual fair, with numerous district and State fairs, so that every farmer or manufacturer may avail himself of two or three of these annual shows within a reasonable distance of travel, at which he may exhibit, for the premiums offered, his stock, agricultural crops, or his machines and merchandise. At these numerous fairs now held in the United States, many thousands of dollars, in some form or other, are annually paid in premiums to the exhibitors. It has been the custom of some of these societies to pay as premiums medals and diplomas; others have established the rule of awarding articles of silver plate, varying in value according to the amount of the several premiums offered; others offer chiefly cash premiums; while a few award, in addition to cash, sundry agricultural books and periodicals. To the award of medals and plate there are several ob-

jections, when compared to other forms of premiums, and we are glad to see that some of the societies who had formerly confined their awards to premiums of this character have become convinced that they are less efficient, and esteemed of less importance by exhibitors than premiums of more useful and practical value. Silver is now less abundant than gold, and it seems like an entire misapplication of its use to convert it into articles of comparatively small practical utility, when premiums of the same cost of some other character might be rendered of the highest practical value to the farmer and his household. Cash premiums we presume would be preferred by a majority of exhibitors, because this can be expended in the purchase of such articles as may be most needed. But while most farmers would prefer the cash, the masses, no doubt, would be more benefitted by the award of such premiums as would have the tendency to improve the agriculture of the country generally.

Many farmers are slow to adopt new and improved implements, and more are unwilling to pay the cost of a single agricultural journal which would prove of lasting and perpetual value to them. Many farmers refuse to take an agricultural paper because of the prejudice that once so strongly existed against book farming, and because they have had no opportunity to judge of their value, owing to these prejudices, but if awarded to them in the form of premiums they would not fail to estimate their value, and the general dissemination of the information they contain would add materially to the individual and general prosperity of the farming community.

As the season is approaching for making up the lists of premiums by the various agricultural associations, we would suggest that the subject

of the character of the awards be taken into consideration, and that agricultural implements, agricultural books and periodicals be substituted for plate and for the smaller cash premiums.

We need not here recount the value of agricultural journals to the farming community, every officer of an agricultural society is perfectly acquainted with this. A single hint or suggestion, in a single agricultural paper, that would otherwise have escaped the attention of the reader, often proves of ten times the value of the cost of a whole year's subscription. We hope, then, that for the coming year ten thousand copies, at least, of the agricultural papers of the country will be awarded as premiums. We think there are but few of the exhibitors to whom the award of small premiums will be made at the next season of fairs in Kentucky and Missouri, who would not at the end of the year value the *Valley Farmer* as a premium at ten times its actual cash cost; and the same, we have no doubt, would be true of many other similar journals in the country.

SMUT IN WHEAT.

It has generally been admitted that smut in wheat is produced from the germs or sporules of the previous crop of smutty grains, and hence the use of certain washes and the application of lime or plaster to dry as well as to aid in the process of destroying the germs of the disease adhering to the seed grain. These applications have evidently had the tendency, in a great measure, to prevent the disease in a future crop. But a writer from Kingston, Tennessee, in the *Scientific American* advances a new theory in regard to the workings of blue-stone or other solutions generally used for steeping the seed grain in. He says, smut is caused by using seed that is not fully matured, and this he says can be proved by taking a few bundles of No. 1 wheat in the early dough state and sowing it, when it will produce a glorious crop of smut; but take from the same wheat when fully ripened, and sow it either after oats, corn, or clover, and the wheat will be good. Defective grain is only able to produce a stalk and start the grain, but not to finish it. Put such grain into a solution of blue-stone, and in a few hours, he says, the germ is dead; good grain will resist the power of the acid for a day or two. The only benefit to be derived from soaking wheat in blue-stone is, it destroys the germ of such grains as were not fully ripened—as this correspondent says, these facts can be easily proved by making the experiment. In further proof of his theory he

relates the circumstance of an old farmer in Tennessee, who was noted for having good seed wheat which all his neighbors were anxious to get. It was known under the name of "barrel wheat," and always yielded larger and better crops than any other kind of seed to be procured; but such was the demand for the old farmer's wheat that everybody wished to exchange with him, which finally gave him so much trouble that he told them that they could all have "barrel wheat" if they would take the trouble to produce it. The secret was, to take and strike the sheaves over the edge of a barrel, and what scattered off was "barrel wheat." The largest and most matured grains came out the easiest.

We have seen farmers select their seed wheat in a similar way by threshing the bundles over the edge of a plank in order to get only the plump, best ripened grains, believing in the true doctrine, that their crop would be like the seed sown—heavy large grains. Whether the caustic solutions used for steeping seed grain, only have the tendency to destroy the vegetating principle of the immature and weak grains, leaving only the best, sound grains; or, whether the smut has the power to perpetuate itself from its own germs, we are not prepared to decide, but we have ever urged the importance of selecting none but *just such grains*, whether wheat, corn or other variety, as the farmer wishes to raise, for the crop will generally be like the seed.

FARM RECORDS AND ACCOUNTS.

If we will notice the practice of those merchants and manufacturers who, above all others, have been most successful in their particular business, we shall observe one peculiar characteristic, viz., that of keeping full and accurate records and accounts of every item of cost and of circumstance, that do in any way affect the result of the balance sheet of their various operations at the end of the year. It is by keeping the strictest account of profit and loss upon each department of business that they are enabled to know what will pay and what will not. A glance at the final account at the end of the year will show whether the profits will warrant a continuance of the enterprise or not. But where a large capital is involved, unless a full account be kept of the items of expense incurred, no reliable balance can be depended on at the end of the year, and hundreds or thousands may be sunk without knowing it.

What is true of the merchant and of the manufacturer is equally true of the farmer; and yet

how few farmers pretend to keep any regular account with their farms in regard to the amount expended or the sums received for products sold. If at the end of the year they are able to square up for their farm and family expenses and find a balance on hand, the inference is that they have made something. But they are unable to say how much this crop has netted or how little that has paid beyond its cost; or whether, instead of realizing an actual profit, some certain crops have not brought them in debt. It is true, much depends on the character of the season in determining the profit of that crop or this. But stock growing, for instance, is less influenced by these causes. A farmer may buy fifty bullocks or a hundred hogs at a given price per head or hundred pounds, he may pasture them six months and feed them 500 or 1000 bushels of grain, of various kinds, and unless he makes some estimate of the items of expense, he will be unable to show, when the whole is disposed of, whether he has realized five per cent. more or less on the cost, or whether he has not actually sustained a loss by the operation. If an account of the various items of expense be kept, he can form some idea which course of feeding has payed the best, and whether one has not resulted in loss while a modification of his system would not materially add to his profits. The farmer is as much a manufacturer as he who buys his leather and makes it into shoes, or his cotton and converts it into cloth. He buys his seed, his manure, &c., and, after various manipulations, nature converts them into wheat, corn or potatoes. Or he buys or raises his cattle and hogs, and to these he feeds his grass and his grain and through them are transformed into beef and pork. By keeping an account with the various departments of the farm, and a general account of the whole, the result, to a dollar, is seen at the end of the year.

By keeping a full account of the farm transactions it may be seen that by a certain system of management loss has resulted. A knowledge of this fact may readily suggest important improvements, which will greatly change the amount on the other side of the balance sheet. If we do not employ means to know when and where we are wrong, we shall not be apt to employ means to set ourselves aright.

We have before and often urged the necessity of every farmer keeping full accounts of every item or event that can in any way affect his interest. One difficulty we know has been in the way of many doing this: they are not, like the merchant or manufacturer educated to the busi-

ness of keeping accounts, and to adopt a form and prepare a book for all the various items of account in systematic order, is not so easy for every one to do. But to meet this important demand, and to reduce the whole system to the most perfect, easy and comprehensive form, FRANKLIN B. HOUGH, Superintendent of the New York State Census, of 1855, and author of various works, &c., has come forward and has prepared "THE COMPREHENSIVE FARM RECORD, WITH DIRECTIONS FOR ITS USE," which is so admirably arranged that each page suggests the necessary record to be entered not only in regard to every particular crop, but dates of seed time and harvest, the blossoming of trees, plants, &c., meteorological tables, &c., &c. In short, pages are prepared with blanks for every conceivable necessary record, to enumerate which we have not the time nor the space. But we can assure every farmer that it is just the work that he needs.

The book is well printed upon heavy ledger paper, neatly ruled and substantially bound in Russia backs and corners and cloth sides and prepared to embrace a series of 25 years, at a cost of but twelve cents a year.

As a new year is about to be entered upon we hardly know what general course to recommend to the farmer that would promise more beneficial results, than to obtain one of these records and begin a perfect system of farm accounts.

The work is published by C. M. Saxton, Barker & Co., No. 25 Park Row, New York, and may be had of any of the dealers in Agricultural books.

[Written for the Valley Farmer.]

THE STARVATION OF THE SOIL.—The history of agriculture shows that every nation save one, has gradually but surely starved its soil. Baron Liebig says of the ancient Romans, "All these rules had only a temporary effect; they hastened the decay of Roman agriculture, and the small farmer ultimately found that he had exhausted all his expedients to keep his fields fruitful." The fall of the Roman empire he ascribes not a little to the spoliation system of agriculture there pursued. It is often the case that a nation is slowly ruined by its bad system of agriculture. Let the soil of a nation be impoverished and the nation soon goes to decay. The Chinese have for 3,000 years kept their soil in a good fruitful state. Every other nation under the sun is ruining its soil. With all our boasted knowledge the Anglo-Saxon races are bleeding to death the soils on which they live. The Chinese have set an example which, if other nations would follow, they might preserve their soils and their national prosperity. Le Huc, a French traveler in China, says he often saw well dressed, educated men, standing by the roadside

with shovel in hand to gather up as soon as dropped the excrement of passing horses and oxen. Mr. Meehi, of England, writes in the *London Times* thus: "I consider it a public duty to direct attention to a danger of great magnitude which threatens British agriculture, and through it the nation at large. I mean the gradual and sure exhaustion of the soil of Great Britain by our new sanitary arrangements, which permit the excrements (really the food) of 15,000,000 people who inhabit our towns and cities to flow wastefully into our rivers. The continuance of this suicidal practice must ultimately result in great calamities to our nation." This is precisely the practice of every European and American nation. The human offal drawn from the soil is not returned, but lost. The sewerage of great cities poured out into rivers, lakes and oceans, is a fearful drain upon the soil, and in a few hundred years it will be sensibly felt. The soil must decline just in proportion as its crops are taken from it. This is a truth farmers should ponder well. *

Drilling vs. Broadcast Sowing of Wheat.

There is, perhaps, no crop of grain in the United States in which greater improvement has been made in its cultivation than in wheat, particularly in the great West—and the reason of this is obvious. Until within a few years our Western farmers were without the benefit of railroads and consequently without a market for their surplus wheat, hence there was no motive to increase the crop by extra care and cultivation beyond the wants of the family or the neighborhood. But in more modern times, since the opening of the markets of the world to Western farmers, wheat has become one of the most profitable crops in a large section of country, and hence our progressive farmers have found it to their interest to prepare their lands better and to make such other improvements in wheat culture as might be brought about with more and better implements for cultivation. Among these the plow, the roller, the harrow, and the drill, have been added or greatly improved, and yet we are far behind the best farmers of Western New York and those of England in the perfection of wheat growing. Among the improved implements that have been introduced there are none more important than the wheat drill; a large portion of the wheat that is sown is made to follow immediately after corn where the drill cannot be used to advantage owing to the interference of the corn stubble and weeds, that are left on the land after harvest. But where wheat is sown on fallow land or after clean crops, the benefits of the drill have been enumerated again and again by those who have used them, and we

do not know of an instance where the drill has been introduced that the farmer is willing to discontinue its use where the nature of the preceding crop will admit of its operation: and it is only necessary for the careful observer to witness the crops growing together at any stage of their growth that have been put in by the two methods, to be fully convinced of the advantages of the drill system.

A prolific writer, and constant contributor to one of our most popular agricultural periodicals, has labored through several columns in two consecutive numbers of the work, with the promise of "further consideration of the subject, when other facts and inferences will be adduced in illustration of the subject," to prove that drilling wheat has no advantage over the old method of scattering the seed promiscuously over the surface, to take its chance for being covered at sufficient depth to insure vegetation, or to remain on the surface liable to be devoured by the birds.

It is but a short time since the same writer labored ardently to prove that in transplanting trees from the nursery with their roots mutilated and half destroyed, as is too often the case, in digging them, it was better to plant them with their entire tops than to cut them back in proportion to the loss which their roots had sustained; and in a later number of the same work, the same writer labors with equal industry to prove that mulching newly set trees is equally inadmissible. Now, all experience, common observation, and the least knowledge of vegetable physiology, as well as common sense go to prove the absolute necessity of the one and the importance and advantage of the other of these processes; but the writer seems to have a mania for taking the *opposite sides* of all popular questions of the day that have a bearing upon improvements in agriculture. With all intelligent readers his teachings are not calculated to do any material harm. But there are some who may receive his arguments as law, and practice after them, inasmuch as they appear without dissent or comment by the editors of one of the foremost papers in the country. It is the giving publicity to the false teachings of such eccentric minds, that too frequently creates the objection to "Book Farming," particularly when they appear in such works as we have alluded to. We are pleased to see all important questions discussed, so long as argument is likely to throw light upon the subject, with the prospect of improvement, but when the writer has no other object but to appear in print, and attempts to overthrow established principles by false reasoning, it is better for the public that he should remain silent.

CIRCULATION OF MATTER.

One of the most interesting subjects for contemplation, is the wonderful and mysterious changes which matter is ever undergoing, constantly assuming various forms, and yet without loss or diminution. To the farmer, the subject is of peculiar interest, because from the nature of his avocation, he has the opportunity of witnessing these transformations of the various forms of matter, once organized, again into wheat, corn, beef, pork, &c., and these again into living moving humanity. The following beautiful portrait of the various forms which matter is undergoing, is by Elihu Burritt, the learned blacksmith:

"The earth moves, lives, and acts; it begets and sustains life in all its varieties of organization. It breathes and its breath becomes an atmosphere as essential to vegetable as to the animal creation. That atmosphere, modified to every genial temperature, laden with sunbeams, rain and dewdrops, respire upon the earth, and fills its veins with renovated life. The action of solar and electric heat animates the digestive process of evaporation and distillation, developing the chemical qualities of the soil, and thus generates a gastric, germinating fluid, which penetrates everything susceptible of expansion.

"It gently opens the sere pores of the acorn and the grain of wheat. It feeds their expanding veins with a lymphatic element, composed of all the elements of human blood, though combined in another form, which lacks but one more process to fit it for the veins of man. Like man, the sturdy oak is dust, and unto dust it returns. It is not a mere symmetrical inflation of the acorn, that vital fluid supplied it with a substance from the earth which coalesced with the properties of that acorn, and hardened it into wood instead of flesh.

"Every limb and leaf, every wart and wen upon that gnarled trunk, every inch of its iron vertebrae, has been developed by a process of nutrition similar to that which feeds the bones, nerves, and muscles of the human body.

"The forest, the field of grain, the prairie and the luxuriant meadow, and all the animals they sustain are merely a portion of the earth's surface propelled in perpetual circulation by this organic system of everlasting action. Go out into your meadows, into your garden, and strike your spade into the rich mold. Compute, if you can, how many forms of life a square foot of that soil has circulated since the evening and the morning were the first day. Look at that gigantic oak, whose Briarean arms have defied the tempests of a hundred years. Conceive for a moment, the remote and consecutive history of the elements in its sturdy trunk, its stubborn branches, and its tenacious roots. The matter that lies in dormant induration in that tree, in another form may have been propelled through a hundred human hearts, and warmed into human flesh; may have done service in the strong muscles of the ox, the sinews of the bear, the

talons of the vulture, the feathers of the eagle. The re-organized substance of every species of plant, and grain and grass; elements that spread the rose-leaf and mantled the cheek of beauty; that bleached the snow-white lily, and polished the fine head of lofty genius; that over-arched the dome of thought, and bent the rainbow;—all these may lie mingled within that rough bark.

"Look at that oak again; it stands immovable in the breeze; but the great system of organic action is upon it, hastening the dissolution of its constituent elements, and propelling them through other combinations. Fifty years hence, and some of them will mingle in stalks of yellow wheat, in blades of grass, and flowers of every hue; in the veins of man, beast and bird; and some will stretch the insect's wing, and lade the busy bee with honey for its cell. And ages hence, in the ceaseless progress of its circulation, some of the substance of that oak may fall in noiseless dewdrops upon the place where it now towers up towards heaven. Yet through all the ages of its continuous circulation not a grain of that matter will be wasted, annihilated, or lost. Had not this law of preservation remained as steadfast as any other law of God, through every process of composition and decomposition, the solid globe ere this would have been entirely exhausted."

Grass as a Renovator of the Soil.

In the Atlantic, or older States of the Union, where the farms are generally small, and, by the erroneous practice of farming followed in other times, have become worn out or reduced in fertility, the chief reliance for paying crops is in the liberal application of barn-yard and home-made manure of various kinds, manufactured from muck and of any substance at command that can be employed to restore the lost fertility, besides large quantities of guano, ground bones, fish manure, &c., that are purchased at prices that would almost frighten our Western farmers into bankruptcy. But upon these old farms there is no other alternative; the manure must be applied or no crops can be expected, and notwithstanding the great cost of these manures the farmers are among the most prosperous citizens. But upon our large farms of the West it would seem like a formidable task to get together manure sufficient to apply, even in a series of years, to one of these farms; yet if all the straw and other waste vegetable matter that is accumulated upon the farm should be husbanded and worked over in the barn-yard and stables a large amount of valuable fertilizing matter might be secured at a comparatively small cost of time and labor. But the chief reliance for manure on these farms must be upon the natural products of the soil, secured by regular rotation with the

grain crops. For these purposes clover, buckwheat, rye and the common grasses are indispensable. One of these should come in as often as once in three, or at furthest five years. Among these resources clover is of the first importance, but from the careless manner in which it is too often sown it frequently proves a failure. When sown early it is sometimes injured by late spring frosts, but with the ground properly prepared it is less frequently injured in this way than it is from a failure to sow early enough. When sown upon winter wheat it is a small matter to sow the seed at just the right time; but when sown with oats or other spring grain it is generally sown too late to gain a firm foothold before dry weather overtakes it.

One of the most successful instances of the systematic cultivation of clover in connection with grain crops that we have seen recorded, we find in a late number of *Moore's Rural New Yorker*, by P. Hathaway, of Milan, Ohio. Mr. H. for a succession of twenty years raised wheat on one of three fields, sowing clover on the wheat in the spring, which received one bushel of plaster per acre. The clover was pastured the next season and then plowed under in time to rot, and sowed to wheat in the fall of the third year. The clover was turned under as deep as a span of horses and yoke of oxen with a good plow could turn it. The average yield of wheat for the first seven years was twenty-six bushels per acre; near the close of the term thirty-six bushels; and now on the same land, the yield is from twenty-five to thirty bushels per acre, and this sown on oat stubble with two plowings. He adds: "The midge for a time was a baffling pest, but, now, when we escape its ravages, the land proves itself unimpaired in fertility." This is limiting the rotation to a small number of crops, and may be regarded as severe cropping, and under ordinary circumstances it would be better to extend the variety of crops, bringing in clover and rye at frequent intervals. It is not, however, on all soils that plaster will prove beneficial, but that question must be determined by trial. Both plaster and lime should be more extensively used with clover than they are. No land should lie through the winter uncovered. When corn or other hoed crops have been removed, if the land is not to be sown to winter grain, rye should always be sown early among the corn, so as to make a strong growth before winter. This affords protection to the soil, prevents washing by heavy rains, and affords a rich pasture during winter and early spring for cattle and sheep, and then a rich coat of vegeta-

ble matter to be turned under for a spring crop. But a more permanent and substantial improvement of the soil is derived from a rotation with meadow, where grass and hay are leading objects of the farm. This implies stock raising, another important auxiliary in restoring the wasted fertility of the farm. With stock more or less yard and stable manure must be made. This applied to the meadow in the fall adds wonderfully to the stock of grass and grass roots, which in their turn become manure to future crops, thus increasing the acreable yield of the grain crops.

With a little judicious management in the division and rotation of crops—bringing in clover, rye and the grasses, the soil may be constantly improved and each succeeding grain crop increased.

THE DROUGHT.

ITS BENEFITS.

"Now no chastening for the present seemeth to be joyous, but grievous: nevertheless, afterward it yieldeth the peaceable fruit of righteousness unto them which are exercised thereby. Wherefore lift up the hands which hang down, and the feeble knees."

A recent writer, alluding to the present intensely interesting political aspect of our country said: "To every sober, observant mind, these seed sown upon the wind for the past six years were intended by those who cast them to be productive of political whirlwinds during the present autumn. So well had the schemes been laid that only a few weeks since their maddest plans seemed verging to a climax. The drought has just pressed its rude voice into the whirl of strife, and, with its lean hungry glare, compels itself to be heard. Man is not self-dependent, neither are political demagogues omnipotent. Such is the great lesson which it is burning into the brains of the most stupid; such the warning it is uttering to the wildest fanaticism. An immense amount of the machinery which would have been brought to bear for the excitement and maddening of the masses is powerless for the want of material support such as prosperous times would have given."

There are allusions to facts, in the foregoing, well worthy of attention and reflection from our rural classes especially. It is time for the farmer to arise in his might and put a stop to the political demagogues whose chief aim seems to be to keep the country in turmoil for their own aggrandizement; to keep the minds of the masses in a state of feverish excitement upon subjects it were far better to let alone. It is time that our halls of legislation were filled more with industrious, conservative farmers, who would look after the development of the great resources of the country, and less with lawyers and political tricksters who spend three-fourths of the time and squander the people's money in disgraceful wrangling often about matters which would regulate themselves if let alone, while our chief interests are neglected.

The recent drought has been unprecedented in its extent and severity. It is our present purpose to consider its beneficial effects chiefly in a more direct agricultural point of view. Although it has occasioned much inconvenience, loss, and even suffering, it is not without its compensating advantages to the farmer. It has, no doubt, rid us of myriads of destructive insects. The insect creation is large, and they increase, when unchecked, with fearful rapidity, causing at times greater destruction of crops than even drought. The wheat crop is sometimes nearly destroyed by the midge or the chintz bug; fruit is destroyed by worms or the curculio; the meadows eaten up by grasshoppers, or the roots of the grass greatly injured by the grub which feeds upon them. During the recent drought, vegetation has been checked and greatly dried up, and the earth has been thoroughly dried to a great depth. The circumstances have been unfavorable to the life and increase of insects, inasmuch as they generally require an abundant vegetable growth, warmth and moisture. Whoever has thoughtfully observed the domestic hen during last summer scratching about from place to place in her almost fruitless endeavors to find insects for her brood, has seen evidence of the scarcity of insects.

Birds are the great natural check upon insect life. The past season, the fruit grower has complained that he never before knew the birds so destructive upon fruits. The reason doubtless is, that insect food was scarce and they were forced to resort more than usual to fruits for food. We hear less than usual this season of the ravages of insects upon crops, even the plum in some localities has almost entirely escaped the curculio. We hear less than usual also, in some places at least, of the music of the katydid, the cicada, and others of the noisy insects. If it is true that the drought has checked the increase of insects, we shall probably be more benefitted by it next year than we have been the past.

Secondly, the character of the soil as regards fertility is generally improved by drought. Heat and air are essential to the fertility of soil. A sub-soil which is retentive of moisture will be cold, clammy, sour, and incapable of supporting vegetable life. Air will not be admitted to a soil that is saturated with water, except the very small portion that is contained in the water. Warmth will not be admitted because heat will not readily extend downward, the heated particles rising. During a drought the water of such soils will be dried out, evaporated from the surface, and will bring up to the surface various fertilizing salts which are held in solution in remote depths of the soil. Heat and air will be admitted to the sub-soil, a chemical change will be effected in its character, its sourness corrected, and it will be rendered capable of supporting vegetation. If the land has been deeply plowed, heat and air will be more freely admitted, the roots of plants will extend to a greater depth, rendering them capable of withstanding drought, and the roots of annual plants will be left to decay, thus enriching and deepening the soil.

THE LESSON WE SHOULD LEARN.

The most important lesson which the experience of the past season should teach us, is in regard to the value and importance of under-draining and sub-soil plowing. The former is expensive and the mass of farmers are not prepared for it; but in all cases where it can be adopted for lands requiring it, it will be found one of the best investments that could be made. Sub-soil plowing, however, with a suitable implement, can be adopted by the majority of farmers, and for rendering our soils capable of withstanding our precarious seasons whether wet or dry, without material injury, is of the utmost importance. If the soil is of a character to admit of it, the roots of the plants will extend downward to regions of perpetual moisture, and thus be little affected by drought. On some of the Missouri river bottoms, corn roots have been known to grow to the depth of fifteen or twenty feet. The corn on such land has been uninjured this year, while on the adjoining upland it did not make half a crop. Whosoever has had the opportunity to observe crops the past season upon under-drained or thoroughly sub-soiled land, has certainly not failed to notice their great superiority over crops on land which has received only shallow cultivation. With our sub-soils opened to the depth of eighteen inches, we need have no fear of suffering materially from such a drought as we have lately passed through; and land so plowed, will, beyond a doubt, be greatly benefitted, deepened and enriched, in the manner which has been pointed out.

If the opinions now advanced are correct, the season following a severe drought, other conditions being favorable, will be a very fruitful one, which we think is usually the case.

[Written for the Valley Farmer.]

SPONTANEOUS PRODUCTION.

I have been a reader of the *Farmer* for two or three years, and I must say, I like it, because every month I find some excellent thoughts in it concerning facts which transpire in our everyday life, and also, letters, treatises, and lectures on higher and more important subjects, which every farmer ought to understand. I see many subjects discussed in it which are not mentioned in most other journals; among these is the subject of spontaneous development of trees, plants, &c. It was with pleasure that I saw in the July Number your remarks, with an extract on that subject. It is in the hope that I may induce others to give their experience and observation on this question that I write this.

From observing facts merely, and not from any scientific investigation, I am inclined to be a believer in spontaneous production. It is facts, that others know to be such, and everything else bearing upon the subject, that I want through the columns of the *Farmer*.

During wet seasons, upon lands that remain for a great part of the time saturated, it is a fact that new grasses will appear, grasses that have scarcely been seen in the country before. Such was the case in 1858, when almost whole fields were overrun by a large, rank grass, which,

when left to itself, under favorable circumstances, would grow to the height of six or seven feet. I have heard no proper name for this grass; I never heard of it before, except in 1851, a wet season.

It is impossible that the seed could have been scattered over the country the previous year, for none of the grass grew for many years before and never in some places. Is it possible that the seed (if it sprung from a seed) could have been so long awaiting a suitable season for germination? Or is it not more probable that a certain condition of the soil and atmosphere spontaneously produced it? Now it is difficult to find a specimen of this grass. It is certain that in ordinary seasons it will not grow.

I have also noticed, as I have no doubt others have, that where a piece of new land is broken and left to itself for a year, it is almost sure to grow a certain grass or weed, most generally the smart weed, commonly so called, the seed of which must have come from a long distance, if it came from seed.

When the weather is wet enough, newly worked roadsides are apt to produce this weed. Now it is, I admit, barely possible that the seeds might be blown upon these lands, and germinate, but it is not among the probabilities.

I think we have reason to accept the theory given us by learned geologists, concerning the formation of the earth: that it was once a revolving mass of gaseous fluid then going through innumerable changes and eruptions, cooling and forming water and the first simple principles of the primitive soil, which by its natural and inherent "creative energy" produced vegetation of the crudest kind. The Great Creator in His great world laboratory gave effect and power to this chemistry of the earth. It produced vegetation, then the animal kingdom, until the earth became properly prepared for man, the noblest of all His creation.

Weeds and grasses, thorns and thistles were produced and destroyed and produced again long before Adam was placed upon the earth.

Then, if the soil, atmosphere, &c., possessed the "creative energy" once to produce vegetation spontaneously, are not the same natural laws at work now that were then so actively engaged? Most certainly, for natural laws never change, any more than the great Law-Maker himself changes.

O. C. GRAVES.

Ottumwa, Wapello Co. Iowa.

TO MEASURE HAY STACKS.—"More than twenty years since," says an old farmer, "I copied the following method for measuring hay from an old publication, and having verified its general accuracy, I have both bought and sold by it, and I believe it may be useful to many farmers where the means of weighing are not at hand. 'Multiply the length, breadth and height into each other, and if the hay is somewhat settled, ten solid yards make a ton. Clover will take from ten to twelve solid yards per ton.'"

[Written for the Valley Farmer.]

DOES BLUE-GRASS CAUSE THE DEATH OF TREES IN PASTURES?—This question is generally answered in the affirmative by all writers, while my experience leads me to a different conclusion. The tramping and packing of the ground, particularly in wet weather, by the pasturing cattle will finally kill any tree, and the sooner should the climate be dry. Where do you find such splendid oaks, hoary with old age, as in old England, on ground pastured for centuries, and coated with a heavy blue-grass sward? There the cool, moist climate, counteracts the injury done in the hot, dry atmosphere of our middle States, by the packing of the ground, and the absorption of dew and rain, by a thick blue-grass sward.

If these propositions are then correct, it follows that the drought kills the trees on blue-grass pastures, and that grasses and the tramping and packing of the ground aggravate the cause.

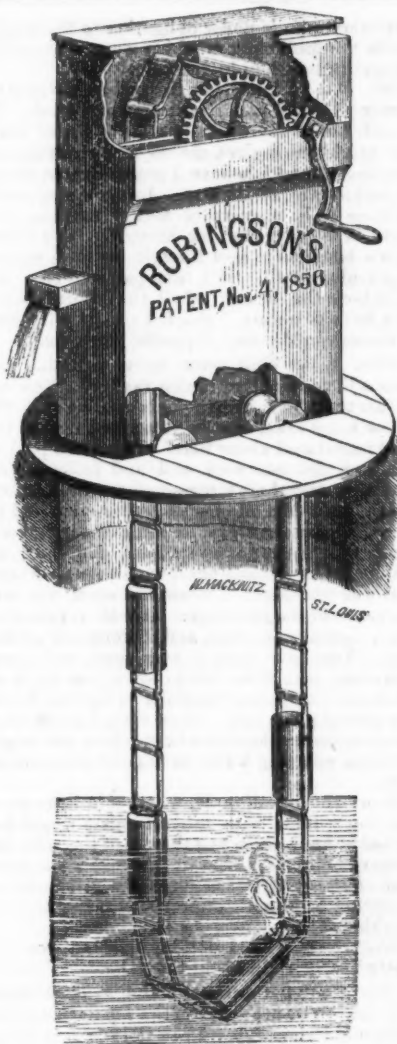
Wherever lots of cattle and horses are put up in winter on ground studded with trees, they will most all become diseased or die the succeeding season, although there be not a particle of grass on the same; it is the packing of the ground to the exclusion of moisture and air, which the spongioles of trees equally require, that causes disease and the death of the trees—not the blue-grass or Timothy directly, but indirectly. Why would any small tree or any plant die on a Timothy meadow? Because all grasses are the greatest absorbers of moisture, leaving in a dry season none to spare for other plants. No vegetation thrives under a dry, hard crust, for the same reasons—porous soil is a life condition for most plants and trees. To keep these fine and thrifty in pastures, they should be left in groves here and there, and the soil plowed under them twice a year; or, better yet, if a brook or creek run through the same, to leave and protect all the trees thereon, and there would be no more complaint about perishing trees in pastures.

St. Louis County.

E. MALLINCKRODT.

SHELTERED FARMS.—On former occasions we have discussed at some length the importance of growing timber as protection to farm crops, and its effects upon climate. A case in point is given by a correspondent in one of our exchange papers. He speaks of a piece of five acres of wheat in Delaware which grew alongside of a grove of timber; it made a good crop; there were seventy acres exposed to the full blast of the winters' wind, and the consequence was it was hardly worth cutting. He also speaks of the effects of the protection of woods to orchards in Michigan. He says:

"Our orchards here did well when the country was new and the clearings were small. But as our forests recede from the orchards, the bark on the west side of many a fine tree is killed by the piercing west wind. Some of our neighbors have very considerably preserved belts of timber, and clusters of shell-bark, black walnut, and butternut; while others, like Time, have cut down all, and are now reaping the fruits of their folly instead of their orchards.



**ENDLESS CHAIN BUCKET PUMP.
ROBINSON'S PATENT.**

The above pump is suitable for raising water from Deep Wells, Cisterns, Cellars, Mines, Ponds, Quarries, &c., for the use of Dwellings, Stores, Mills, Factories, Breweries, Tan-yards, Railroad Tanks, &c.

This Pump will not freeze in a well or cistern in the coldest weather. The whole pump can be removed to another well, if desired, in half an hour.

By means of this Elevator, water can be raised to a greater height, with more facility and ease, and at less cost, than by any other process now in use. So great is the power and so simple

the construction, that a child ten years old, can, with the greatest ease and perfect safety, raise from a depth of sixty feet at the rate of 6 gallons per minute. A man can raise from 8 to 10 galls. per minute.

By the philosophy of its construction it will convey the fresh air from the top of the well or cistern down to the bottom, and discharge it under the water. Thus the pure air is constantly rushing through the water, whilst at the same time the water is kept running by the passage of the buckets. The effect of this is, that the foulest well of water is purified in a few days, and kept sweet as long as this pump is used.

All the machinery is made of the most durable material. The whole pump is of iron, except the box. The chain is of wrought iron, the buckets of galvanized iron, which is not subject to corrode or rust. Numerous references can be given to those using the Elevator.

The St. Louis Editor has one of these Pumps in use, and is highly pleased with it. W. I. HENRY is the owner of the patent for Missouri. He can be addressed by letter, Box 783, St. Louis Post Office, or seen at the manufactory of Nixon & Ellison, S. E. corner of Broadway and O'Fallon street, St. Louis, Mo. T. J. Albright & Son, No. 40 North Main street, are agents for the sale of the Pump.

TO IMPROVE CIDER.—Let the new cider from sour apples—sound and selected fruit to be preferred—ferment from one to three weeks, as the weather is warm or cool. When it has attained to lively fermentation, add to each gallon, according to its acidity, from half a pound to two pounds of white crushed sugar, and let the whole ferment until it possesses precisely the taste which it is desired should be permanent. In this condition, pour out a quart of the cider, and add for each gallon, one-quarter of an ounce of sulphate of lime, known as an article of manufacture under the name of "chloride of lime." Stir the powder and cider until intimately mixed, and return the emulsion to the fermenting liquid. Agitate briskly and thoroughly for a few moments, and then let the cider settle. The fermentation will cease at once. When after a few days the cider has become clear, draw off and bottle carefully, or remove the sediment and return to the original vessel. If loosely corked, or kept in a barrel on draught, it will retain its taste as a still cider. If preserved in bottles carefully corked, which is better, it will become a sparkling cider, and may be kept indefinitely long.

Now that our forest trees have shed their summer robes, an abundance of leaves should be gathered for present and future use. There is no danger of getting too large a quantity; they will be of service in many different ways, and prove of great value when decayed and united with the compost heap. Leisure hours cannot be more profitably employed than in this labor.

[Written for the Valley Farmer.]

Importance of Farmers' Clubs.

BY DR. L. D. MORSE.

Wherever Farmers' Clubs, or township, city, village or neighborhood associations have been formed and supported for mutual improvement in agriculture or horticulture, the results have been highly beneficial and satisfactory to the vast majority of those who have participated in them. With these results before us, and the frequent presentation by the agricultural press of such facts and the beneficial tendencies of such associations, the only wonder is that they have not become more common throughout the land.

When two farmers meet, who take an interest in their business, something may, and generally is, learnt by each, by comparing observations, practices, and results. Not only may benefit be derived in such way, but also by interchange of seeds, stock, implements, et cetera. The same is true to a much greater extent when a larger number of farmers, in a neighborhood or town, associate for mutual improvement. Instances are numerous where the Farmers' Club has been formed in the fall of the year, and meetings held every two weeks through the winter for the discussion of topics of interest concerning the various operations of the farm. Before the commencement of the busy season in the spring, a series of experiments has been agreed upon, to be carried out by the different members during the season. At the next fall or winter meetings, when the results of those experiments are reported and compared, facts of great value have been developed, which could not so well have been obtained in any other way. In the meantime, each member has probably taken a little more than usual interest and care in his operations. He has read more, and sought more for the experiences of others touching certain points—he has stored his mind with facts, and generally reaped a better reward for his culture.

The following dialogue very well illustrates some of the benefits of the kind of associations under consideration, and also shows the state of feeling in regard to them, which not unfrequently exists among some very good farmers. It may be premised that Mr. B. is one of the largest farmers in the neighborhood. He is a man of more than ordinary capacity—has held important State offices, and probably feels that he knows, as he really does, more than the majority of farmers around him. His interlocutor is the president of a township association, who we will denominate President A.

President A.—“Mr. B., why is it that you have not yet joined our Farmers' Club?”

Mr. B.—“Well, I don't suppose I should be any benefit to the society, and presume I should not be benefitted, for I don't practice as well now as I know.”

President A.—“I think you would both receive benefit and be a benefit to others if you were to join us. I think that farmers, by such associations, may not only greatly benefit each other, but receive indirect benefit by adding to the prosperity of the whole community within their influence. ‘No man liveth to himself,’ you know,

and every man is under obligation to his neighbor in the fulfillment of which we are generally gainers rather than losers.”

Mr. B.—“I know, but then when it comes to farming I would rather go on my own hook. If I understand my business a little better than my neighbors it gives me so much advantage over them, and I believe I generally get along as well as any of the rest. In managing one's business—in matters of money making, you know, it is every man for himself. It is every man's business to post himself up if he wishes to get along well. If I take pains to give my neighbors the benefit of all the information I may have or obtain, I think I should often lose advantage in the way of profits, sales, &c.”

Pres. A.—“Well, now let us examine the facts a little in regard to this matter. You recollect that, four or five years ago, you bought a new horse-rake, that is, it was the first of the kind introduced about here. You attempted to use it—it did not work well and broke. You laid it up, and there it remained for three or four years, until Mr. M. hearing that you had it, and did not use it, called on you to see if he could get it. On getting it down from the shed, he told you that you had put it together wrong, and that was the reason it would not work, and was the cause of the breakage. Mr. M. repaired it, put it together properly, and it worked to perfection. You have used it ever since, and I presume can save from \$25 to \$50 a year by it, in labor and the greater rapidity with which you can get up your hay. Since that, I presume, a dozen of those rakes have been sold in the neighborhood, effecting a like saving for your neighbors.”

Now, the question is, whether a little more free intercourse with other farmers would not probably have given you the use of the rake the three or four years that it was laid by useless, thus effecting a great saving for you, besides introducing a valuable improvement among your neighbors?”

Mr. B.—“Well, I don't know but you are pretty nearly right about the rake.”

Pres. A.—“Let us take another example more in point. You are aware of the reputation of the Dalbrook Dairy Club. I can tell you something of the history of it. The locality is admirably adapted to the dairy business. When Mr. Ramsay and Mr. Botsford located there, they purchased their farms at low figures, and gradually converted them into dairy farms. After a time they conceived the plan of starting a dairy club for the improvement of the vicinity. They talked the matter over with their neighbors—got them interested—the club was formed, and soon grew into an institution of repute and importance. The best dairy stock was introduced. In course of time, by monthly meetings at the residences of the members, nearly all attained a good degree of perfection in the dairy business, and also made very marked advancement in the management of the farm generally. All the butter and cheese made for sale by the members were submitted to the agent of the club for inspection. All that came up to the proper standard of excellence received the Dalbrook Dairy

Club stamp, and was marketed under that name. Their products soon gained a notoriety for excellence of quality, and were sought after by dealers and consumers at advanced prices. The Dairy Club butter brings eight or ten cents a pound more than the average price of other butter.

Now, do you think that Messrs. Ramsay and Botsford have been losers by the course they have taken in forming an association with their neighbors, and in endeavoring to post them up fully in the business to which their farms were best adapted? Not at all, sir. On the contrary, they have been greatly the gainers. They have always been able to sell their products at high prices. Their surplus stock has been sold at high prices without any trouble because people would go there to look for it. The neighborhood has greatly advanced in wealth and prosperity. The farms of Mr. R. and Mr. B. are worth today four or five times as much as they paid for them, and probably twice as much as they would be worth but for the increased prosperity of the vicinity, attributable to the Dairy Club. Good results have been produced in many other instances in a similar way, and equally good results may be produced in any locality by associations which are calculated to develop its best resources, whether it be for growing stock, wool, grain, fruit, or for mixed farming."

Mr. B.—"Your sketch, I confess, has given me a view of the subject that I had not before thought of, and it may be the true one. But don't you think that such societies are apt to lead men into extravagancies and foolish investments in something new? One of your members not long since, I understand, paid some \$75 for a clover huller. I don't believe he will ever get his money back."

Pres. A.—"It would be singular if there were not some evils which might possibly grow out of Farmers' Clubs. To suppose otherwise would be to suppose a degree of perfection that does not belong to human operations. Some farmers, however, judging from their conduct—that is, they take so little interest in any measures for improvement in agriculture—seem to think that farming was brought to perfection many years ago."

"In regard to the clover huller, the member you speak of bought it in partnership with a neighbor. He had about five acres of clover from which he cut the first crop at the proper time for hay. The second crop he allowed to ripen the seed, and by the help of the huller saved 22 bushels of first quality seed, worth five dollars a bushel. I think he has about got his money back this fall, if not more, and still has the machine, nearly as good as ever, for future use."

Mr. B.—"That is better than I supposed he could do, but it is a machine that I know very little about. I always thought they cost a great deal too much. I suppose I may as well join your society. If I don't happen to get there to the next meeting, just hand in my name. Here is a dollar."

There is another somewhat large class of farmers not represented by Mr. B., who are incorrigible Old Fogies, and invariably stand aloof

from all "new fangled notions." There is only one hope in regard to this class. As fast as they wear out their farms, or as improvements advance too rapidly around them, they sell out and move further West. In process of time they will bring up on the shores of the Pacific, and either gradually die out, or be forced into the measures of their more progressive and thrifty neighbors.

Let farmers in every locality where it has not yet been done, organize at once the Farmers' Club, the Horticultural Society, or the Dairy Club, as may best subserve their interest. It will never be regretted. There are many advantages to be derived not pointed out in this paper. Some farmers are diffident and unwilling to get up and address a speech to the President. In such cases the discussions may be carried on with more benefit in a conversational manner. In other instances, the adoption of something more of parliamentary usage will be desirable. In most cases a very brief Constitution and By-Laws is adopted, but an association might get along very well, by mutual consent, without any.

The following is a sample of Constitution and By-Laws, such as has been in use for years in some of the best working societies in the land. It may be readily altered, extended or amended, so as to adapt it to different localities and purposes.

PREAMBLE.

For the purpose of mutual improvement, and for greater advancement in a correct and practical understanding of a better system of farming, founded upon experience and known facts, we, the undersigned, form ourselves into an association, to be governed by this

CONSTITUTION.

Article I. This society shall be known by the name of the "Farmers' Club of _____"

Art. II. The officers of this Club shall consist of a President, Vice-President, Secretary and Executive Committee.

Art. III. It shall be the duty of the several officers to perform the duties usually pertaining to such officer.

Art. IV. The Executive Committee shall have the general superintendence of the business of the Society, select topics for discussion, and announce the same two weeks in advance.

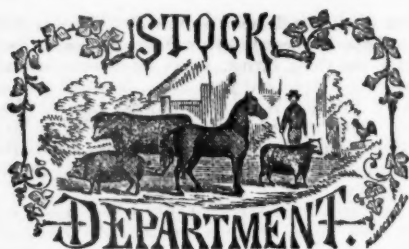
Art. V. Any person may become a member of this Society by signing this Constitution, and complying with all the needful regulations and By-Laws.

BY-LAWS.

1. No member of this Society shall occupy more than fifteen minutes at any time, either in a written article or in remarks before the meeting, unless by permission of the members.

2. Each member of this Society shall consider himself under obligations to do his own part towards its maintenance and support.

Officers shall be chosen annually by ballot, or semi-annually if necessary, and shall serve until others are chosen in their stead.



PORK-FAT SOWS FOR BREEDERS.

It is understood that domestic animals generally, when permitted to take on fat in excess, will not breed. The cause of this may be easily explained, but it is not our purpose to remark upon that point at present. This fact, under ordinary management, or rather in the absence of proper management, applies to sows as well as to any other class of domestic animals, but under a regular or proper system of breeding, breeding sows can hardly be made too fat. We are led to remark upon this subject by reading the following in the *Genesee Farmer*:

Eds. Genesee Farmer:—In a note to my brief essay on raising pork cheap, you doubt the profitableness or practicability of breeding from "pork-fat sows." As my article was neither more nor less than a few hints from the experience of JOHN SKAATS, of Alexandria, I referred to him for more special information on this point. He informs me that he has successfully practiced raising pigs from pork-fat sows for the last fifteen years; and his experience is, "the fatter the better." His litters have varied from 7 to 13 pigs—average 10 or 11—and two litters from the sow a year. He does not allow a sow to come in till she is a year and a half old, and finds it profitable to keep her till she is 5 or 6 years old. He has killed the pigs thus raised at from 6 to 10½ months old; and their dressed weight has varied from 300 to 450 lbs. An equal cross of Byfield and Suffolk is his favorite grade. * * * His swine are never allowed to get hungry, and they never learn to squall! L. S. Attica, N. Y.

["The above facts are apparently conclusive; but we must say that so far as our experience and observation go, sows, when as fat as recommended by our correspondent, do not, as a general rule, breed well. What say our readers?—[Eds. *Genesee Farmer*."]

We have had considerable experience in breeding swine, and at a time, too, when "fancy" breeds were held in high esteem, and their care commanded more than ordinary attention, and our experience fully corroborates what is stated of Mr. Skaats' practice. There is no class of farm animals so carelessly bred, and none in which the lack of proper management results in more serious loss than that of swine. To breed

successfully, and to maintain or improve the good points of a good breed, a uniform system must be regarded; for swine breed so rapidly and at so early an age, that if not carefully attended to, the best breeds will speedily degenerate and become unprofitable. We deem the system practiced by Mr. Skaats as the only correct one in breeding swine, and it is precisely the one that we have always practiced. Sows should never be bred till they are at least 18 months old, nor a boar under 12, or better 18 months old. Up to this age sows should not be allowed to get excessively fat, until they are with pig, and then they can hardly be too fat, with prudent keeping. Pigs, when they first come from such sows are usually small, but the sow has a store of flesh which she will impart to them in an increased flow of rich milk, and the pigs will start off unimpeded, and, with proper care, even on Western farms, may attain proper size for the knife (say from 250 to 350 lbs) at 12 or 18 months old. It is important that none but the best sows be reserved for breeding, and it is equally important that each sow bring two litters a year. When the pigs are about two months old take them at once from the sow. The sudden check in the secretion of milk will cause her at the end of four days to come in season. She is then reduced somewhat in flesh, and she will not fail to breed. Then continue generous feeding as when she was giving milk, and she will again become fat. Continuing this course, with properly selected sows, two litters of pigs may be regularly had within the twelve months, and up to five or six years the sow will continue to improve as a breeder. With suitable crosses and well selected boars, the breeds of swine may be constantly improved; whereas, by the ordinary management of ninety-nine hundredths of the Western farmers the best breeds will constantly deteriorate.

In the Eastern States the farmers do not breed hogs in so large numbers as is common in the corn-growing States of the West, but they afford them better shelter and regard them with more care, and hence it is an easy matter under the system referred to in the *Genesee Farmer* to produce hogs that will weigh from 300 to 550 lbs. at a year old. Our Western farmers can as easily raise them to weigh from 200 to 300 pounds in the same time, and to greater profit than is realized by the course ordinarily pursued.

While on this subject we will say a word or two in regard to the management of boars. As we have said above, boars should not be put to service under one year old, and but very sparingly under eighteen months of age. As soon as a

boar that is to be kept for service is weaned, he should be separated from the rest of the herd, and never allowed to see a sow until required for use. It is better to keep them up in a pen and feed them liberally, and when put to service let one time suffice, and then at once separate the animals. This course will secure better pigs, and allow the boar to attain size and vigor of constitution far beyond those under the ordinary practice, and will stamp his superiority upon his offspring to the latest generation. It is thus, and thus only, that our breeds of hogs can be improved. They have now reached a point of great deterioration, in consequence of promiscuous and careless breeding. It is not unfrequently the case, or rather it is the general practice, to let the herd run together, young and old, and to suffer sows to breed at almost any age, and by boars closely allied. The result of this practice is strikingly apparent on comparing the ordinary hogs of the country with some of those that are sometimes exhibited at our annual fairs by farmers more careful in their practice. These instances, we regret to say, are rare, but we remember particularly to have met with such hogs at the State fairs of Indiana, exhibited by a very few good breeders in that State, and occasionally in some other States. Pork making is a very important interest in the West, and demands a speedy and very effectual reform in the management of hogs. No improvement connected with Western farming would be marked with greater beneficial results.

SWEENEY IN HORSES.—Will you tell what you believe to be the best remedy for curing the sweeney in horses, as it is very troublesome to cure when it once gets fairly seated, and is very painful to the horse? A. A.

Answer.—The sweeney is a shrinking of the muscles of the shoulder, usually caused by a sudden strain in drawing, or by alighting hard upon the fore feet after a jump. We have had considerable personal experience with this difficulty in horses. If taken fresh, it is best to bleed the horse in the leg from the vein on the inside of the arm, called the plate vein, which will allay the inflammation; but for an old case, this is nearly useless. Also physic the horse, and apply fomentations upon the shoulder blade, and the inside of the arm. In all cases, take off the shoes, and give the animal rest in a pasture, or on a dirt bottom in a large stall. If the case is not of too long standing, it is well to rub the shoulders with penetrating oils, like oil of spike. Our practice was to rub with a corn-cob, and hemp crash cloth. When once seated, be careful of over-driving and cooling off, as you would for a case of founder. A long rest in the pasture is the best remedy we ever tried.—[*Ohio Cultivator*.]

Care of Farm Stock in Early Winter.

The profits of farm stock depend very much upon their care and treatment during winter. No animal, after the pastures fail to supply sufficient food in the fall, should be suffered to lose flesh, or go behind. All such waste is an absolute loss to the farmer. Not only is it a loss of the actual waste of flesh the animal sustains, but it is much more, it is a loss, in addition, of all the food it consumes to sustain life until the period arrives when it begins to take on flesh again in summer. It is equally important that stock should be kept constantly thriving in cold weather, as it is that it should gain in summer. A certain amount of food is required to sustain life and to keep the animal system in a state of equilibrium; with less than this there results absolute loss, and it is only the amount consumed beyond this from which any profit can be derived. Now, if it requires one ton of hay, or its equivalent, at a cost, say, of six dollars, to carry a bullock through the winter in as good condition as it was when taken from the pastures in the fall, we will say that there is neither gain nor loss. But add three dollars in hay or grain to the six already expended and there is the increased weight and the improved condition of the animal as an offset. We often see young animals that have gained ten, twenty, or fifty per cent. during summer so neglected in winter as to lose one-half or more of this gain, which will require a considerable portion of the following summer's pasturage to restore. Now, we do not, by these remarks advocate extravagant or costly feeding, but we wish to impress upon the minds of our readers that a horse, cow or hog is possessed of a mysterious, delicate, sensible organism, as much so as that which pervades our own bodies, and that humanity, as well as self-interest, require that they should be properly sheltered as well as abundantly fed during winter, or through that portion of the year when the pastures no longer afford proper protection and food.

Much is lost to farmers by not making proper provision for their stock in the fall, or early part of winter, to meet the changes of weather and the falling off in the natural supply of food from the pastures. A back-set, a sudden check of thrift or growth at this season is felt, and followed with increasing loss through all the succeeding months of winter and spring, and until a full bite is obtained from the fields and pastures of the approaching summer.

Now, it need cost but little to furnish the hogs, the sheep and the store cattle with some coarse shelter to which they could resort in times of

cold, stormy weather, and there are few farms that do not afford sufficient food, if properly husbanded and properly fed out, to sustain all the stock upon it. It is the indifference that many farmers feel to the comfort of their stock that prevents them from erecting cheap sheds, and properly disposing of the coarse food raised upon their farms. And this indifference so generally prevailing among our Western farmers, from long established habit, results from the privations and necessities incident to frontier life; and as the condition and circumstances of the farmers improve, they fail to make corresponding improvements for their animals.

With all the advantages arising from improved breeds of stock, not a little of their superiority is owing to the extra care the farmer bestows upon his favorite animals, for which they have paid extraordinary prices. Extend the same care to our common breeds of farm animals, in the form of shelter and extra feed, and see the benefits that will result from it. A neglected calf, colt or pig is so often stunted through neglect of proper food and shelter during the first winter of its existence, that it never after fully recovers from it.

Stock growing is an essential part of farm husbandry. No system of farming can be complete without it. It is as important to raise stock to consume the refuse and coarse productions of the farm and convert them into manure, as it is to grow corn or wheat; for without the former the latter cannot be grown without a constant waste of the natural fertilizing elements of the soil, which is the farmer's capital—his stock in bank. And while farm animals are required to render the system of farming complete, it is equally important that these animals be so cared for that they may return their proportion of profit for the capital invested. And all this may be done, and more too, if farmers will consider what is due to their animals. The

glect we so commonly meet with arises from a want of reflection, and a proper appreciation of the absolute demands of nature.

CORN AND PORK.—Mr. A. G. Perry, of Newark, made an experiment in feeding a thrifty pig on corn meal wet up with sealding water. At the commencement of the trial the pig weighed 150 pounds; he then fed 56 pounds of meal in the form of slop, which was eaten in six and a half days, and the gain was 18 pounds. Had this quantity of corn been fed to the same animal in a dry, unground state, it is not probable that the animal would have gained more than 7 pounds.

[Written for the Valley Farmer.]

MILCH COWS.

A great majority of the milch cows in the West are badly managed. This has probably arisen, at first from necessity, and has been perpetuated in far too many instances from negligence, want of reflection, or sometimes, perhaps, from want of proper understanding of the advantages and importance of better management. The greatest error, and which is the foundation of several others, is the practice of allowing cows to run at large and pick their subsistence from the woods, roads, &c., with an occasional depredation upon some unlucky farmer's grain field or meadow. Now, in order to insure the coming home of the cows to be milked night and morning, the calves are allowed to suck as long as the cows can make their living from the range. When cows are finally kept home for winter feeding, the calves are perhaps weaned, and the cows soon dry up. It is not unusual for them to be dry from three to five months in the year. By such a practice the cows are nearly ruined, and would be considered quite ruined for dairy purposes by any good dairyman. In a new country, before much land is improved, this is perhaps the only way that cows can be kept, but as the country becomes older there is no excuse for continuing the practice.

Farmers should, as early as possible, arrange their farms so as to keep all their stock chiefly upon their own premises—first and particularly the milch cows. And, why? The most potent reason is the *argumentum ad pocketum*—it will pay better. There is no stock on the farm that will better pay for good feeding and good care, including winter shelter, than the milch cows. A good milch cow, properly treated and managed, will yield a *net profit* of fifty dollars a year. So that any farmer who can keep twenty good cows as they should be kept, especially if near a good market, can calculate on realizing a profit of \$1000 per annum from them. If he falls short of that amount, casualties excepted, the fault will be with himself. He may do this, too, without interfering materially with his other farm operations, and often with benefit to them by the amount of manure that he may save and apply. Such results can not be obtained by allowing the calves to suck all summer—a practice of little or no benefit to the calves, and a positive injury to the cows as milkers. There is no necessity for allowing the calf to suck the cow at all, and the practice is condemned by very many of the best dairymen. It is excusable when the object is to raise blood stock or cattle for beef, regardless of the value of the milk. Some advocate the practice of allowing the calf to suck the first three or four days.

I am aware that the majority of Western cows do not produce, probably, one-half the amount I have named, net profit. If farmers doubt the correctness of the statement of profit here given, the proof and the figures can be readily shown. If it is admitted to be correct, then I ask, is it not a matter of paying policy to commence a reform? If I am correct, you

cannot afford to allow your cows to run at large in summer, or do without shelter in winter. There is a tendency among Western farmers to depend too much upon one branch of farming—corn and hogs for instance—whereas, a more mixed husbandry, would, in the majority of instances, taking one year with another, be found most remunerative.

L. D. MORSE.
St. Louis Co., Mo. Nov. 8, 1860.

SWINE—THE BEST BREED.

EDS. VALLEY FARMER:—In view of the fact that the pork interest is one of the most important interests in the West—that it annually brings more money into the pockets of Western farmers than is brought by any other branch of farming, the best breed becomes a very grave question to be considered. By the best breed, we do not mean the best *looking* breed, but the breed which will produce the most *money*, in the shortest space of time, and on a given amount of food. Of course the questions of hardiness of constitution, good breeding qualities, adaptability to our climate, and to our system of fattening our pork, should be taken into consideration. We do not keep our pigs in pens here as is done at the North and East, the year round, but they are turned out to shirk for themselves as best they may, relying upon clover pastures, the gleanings of grain-fields and the nuts of the forest for their support and growth, and the corn-field or corn-crib for the purpose of finishing off the fattening process.

Having had considerable experience in breeding swine, and having tried most, if not all the breeds now known in the West, I will give my views on the question of the best breeds. And first on the list, without hesitation, I place the Chester County White breed. I have found the hogs of this breed to be perfectly hardy, prolific breeders and good nurses; thriving well in our climate, and under our management attaining a weight of from 400 to 500 pounds with good treatment, at the age of from twelve to eighteen months, and being, in fact, all that could be desired of a hog. They are quiet and peaceable, and good graziers, and fatten very readily at any age you may desire.

The next breed on the list I would place the recently imported Berkshires. They fatten readily on a small amount of food, are good breeders, attain good, average size, and are a great improvement on the old imported stock; their color, black, is an objection, but this is only skin deep, and some think that black hogs are less liable to skin infections than white hogs.

If the Suffolks had a little more hair and the young pigs were not quite so tender, they would strongly contest the first rank—we mean the late importations. This breed has been greatly improved within a few years. The crosses of this breed on the Irish grazer and our common breeds make a decided improvement. The crosses will keep much fatter and mature earlier than the common breed, and an inexperienced person may go among a large herd of the same age, having the same care, and very readily pick out the half Suffolks by their being in much better

condition. The Essex are too poor breeders to be raised as a pure breed—but cross well on other large coarse breeds. But taking all things into consideration it will be difficult to find a breed possessing more good traits for Western men, than the Chester White. And those who are raising hogs would find a cross of this breed of inestimable value. It would increase their size, improve their form, hasten their maturity, and what is more important than all else, materially lessen the amount of food for a given number of pounds of pork. This too would be the case with all the breeds mentioned—but none of the other breeds combine so many excellent qualities.

AGRICOLA.

ARTICHOKES FOR HOGS.

EDS. VALLEY FARMER:—Will artichokes do to raise in an orchard to turn hogs in to eat them? If not, will it pay to raise them at all? If so, how should it be done and for what purpose?

Mexico, Mo., Oct. 1860.

M. M.

The artichoke in good soil is among the most productive of all the root crops, literally filling the earth with its tubers. It is not so nutritious as the carrot or even the potato, yet it constitutes an excellent food for swine, and may be grown to great advantage for that purpose where the hogs are allowed to harvest them. And when grown in an orchard of well established trees, say ten years old and upwards, and left for the hogs to gather as they need them, the effect upon the growth of the trees is very beneficial. Dr. Samuel D. Martin, an extensive stock raiser in Clark county, Kentucky, planted his orchard with artichokes and allowed his hogs to harvest them as suggested by M. M. Upon these the hogs fattened rapidly, at the same time giving a vigorous start to the trees in the orchard. Dr. M. harvested the crop on a few yards of the ground and the yield was incredible.

The tubers may be planted in the fall or early spring on well prepared ground, in rows or drills thirty inches apart and six or eight inches in the row. The ground should be worked a few times during the early part of the season. Care should be taken, when breaking up the ground, not to run the plow so deep as to bruise the roots of the trees. By having an orchard divided into two or three parts, planted in this way, one portion would be available every fall or spring for the hogs.

SALTING CREAM FOR BUTTER MAKING.—A writer in the *Homestead* reports a statement made at the New Haven lectures, that by adding a tablespoonful of fine salt to a quart of cream, as the latter is skimmed from off the milk and placed in the cream-pots until enough accumulates for churning, the time required for churning is reduced to two or three minutes. In a

trial made by the writer, he found this to be true, and his theory is, that the salt acts upon the thin coating of the globule of butter, and so dissolves it that a slight agitation breaks it, and the butter comes at once. The experiment can easily be tried by any butter-maker.

What Causes Corns in the Feet of Horses.

The question has often been asked: "What are the causes of corns in the feet of horses?" It is not unfrequently that the exciting cause can be traced directly to the influence of improper shoeing; in fact, I may say a very large majority of cases are so caused. The first and by far the most frequent cause is contraction of the heels, which, in almost every case, is caused by our present erroneous mode of shoeing. In the first place, the smith bevels the shoe from without inwards, so that when secured to the foot it prevents the natural expansion of the hoof, as it is impossible for it to expand up these inclined planes. When the weight of the animal is thrown upon it, it will be observed that the foot rests in a concavity, which, resisting the natural expansion of the hoof, gradually forces the heels inwards; and, to save a little trouble, the smith frequently hastens the process of contraction by cutting away the bars of the foot, thus weakening the quarters very considerably. These things are altogether wrong. If the bars were preserved sound, and the shoe made with a level bearing, we should seldom find a horse troubled with corns.

Another cause is making the shoe too narrow at the heels, causing unnatural pressure and bruise on that part of the sole between the bar and crust of the foot. When thus caused they are readily removed by cutting well out and applying some of the caustic applications, and the widening of the shoe. If caused by contraction, the cutting process and caustic applications are proper, with the additional trouble of restoring the natural elasticity of the hoof, which can best be done by poultices, and a proper hoof ornament, and applying a shoe beveled slightly outwards from the last nail hole. The shoe should be hammered, but not twisted, as is sometimes done by the smith to save a little labor; the smith generally not regarding his extra labor as paid for. Better for you to pay him two prices and have the work done properly.

Corns are the cause, in most cases, of sprung knees. The horse, in order to relieve the heels from pressure, throws his weight mainly on the toe, thus relaxing the tendons and suspensory ligament of the leg, contraction of which naturally follows. As a proof of this assertion, examine for yourselves the feet of sprung-kneed horses, and you will find a majority, if not four-fifths of them, with corns.

When the feet are not contracted, take pains to keep them so by level shoeing, and preserving the elasticity of the hoofs. By a little attention to these matters much suffering will be prevented, as well as time and money saved.—*Ohio Farmer.*

A NEW RACE OF CATTLE.—The Belgian paper, *Le Nord*, publishes the following: M. Dutrone, one of the most distinguished cattle breeders of France, has succeeded, after twenty years' trial, in producing a bovine race without horns, which carried the first prize at the great cattle show of Poissy, in 1854. A cow of this species, which had been raised on the farm of the king of Belgium, at Lacken, near Brussels, was killed lately in the latter town, in presence of the professors of the veterinary school and the surveyors of the public slaughter-house. The report of these gentlemen confirms the fact that the quantity both of suet and meat was much more considerable than that of the ordinary cattle. Mr. Dutrone ordered that one-half of the cow be sent to Ghent, to be sold for the benefit of the much suffering poor of that town.

KEEPING HORSES' FEET AND LEGS IN ORDER.—If I were asked to account for my horses' legs and feet being in better order than those of my neighbors, I should attribute it to the four following circumstances: First, that they are all shod with few nails, so placed in the shoe as to permit the foot to expand every time they move; secondly, that they all live in boxes, instead of stalls, and can move whenever they please; thirdly, that they have two hours' daily walking exercise when they are not at work; and, fourthly, that I have not a head-stall or a rack-chain in my stable. These four circumstances comprehend the whole mystery of keeping horses' legs fine, and their feet in sound working condition up to a good old age.—*[Miles.]*

A HORSE ADVERTISEMENT.—A man in Wisconsin advertises his horse for sale, and thus discourses:

Thou canst trust thy labor to him, because his strength is great.

Thou canst bind him with bands in the furrow; he will harrow the valleys after thee.

He will gather thy seed into the barn.

His strength is terrible, in which he rejoiceth.

The glory of his nostrils is his pride; his neck is clothed with thunder.

He paweth in the valley, and waxeth proud in his speed.

He mocketh at fear; neither turneth he his back from the hobgoblin.

Lo, now he moveth his tail like a cedar; his sinews are as cables.

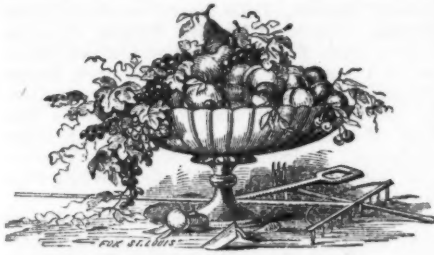
His bones are like strong pieces of brass; yea, like bars of iron.

He eateth grass like an ox; behold he drinketh up a river, and trusteth that he can draw up Jordan in his mouth.

I will not conceal his parts, nor his power, nor his comely proportions.

"He is gentle, he is kind,
And his tail sticks out behind,"

And I want to sell him for something I can pay my debts with.



HORTICULTURAL.

The American Pomological Society.

EIGHTH SESSION, AT PHILADELPHIA, 1860.

We continue our notes of the proceedings of the American Pomological Society, at its late session, held in Philadelphia. For the reasons set forth in the President's Annual Address, it was agreed not to revise the List of Fruits recommended at former sessions of the Society for general cultivation, the Society, therefore proceeded with,

APPLES RECOMMENDED AS PROMISING WELL.

—There was a lengthy discussion upon the various fruits introduced under this head, and a considerable number were finally added to the list. Dr. John A. Warder, of Ohio, presented a long list of apples known to be good in the West, but unknown to the Society, generally, and were therefore not added to the list, but remain for more extensive acquaintance.

SMALL FRUITS.

Currants were first taken up, and a variety heretofore considered one of the best, was found much fault with—we allude to the Cherry Currant. Its great size and fair appearance was generally admitted, but it was considered too sour to be entitled to the praise it has formerly received. By a very close vote it was permitted to remain on the list. Other varieties were talked of, but with no very decided action.

Strawberries—Of the different kinds brought forward for discussion, two new ones of foreign origin seemed to claim the greatest praise. Formerly the foreign varieties have most generally proved inferior to the American Seedlings; but the two following varieties claimed the general admiration of all the members present who had cultivated them, viz: *Vicomtesse de Hericart* and *Triomphe de Gand*.

Raspberries—It was moved by Mr. Hovey that the Allen be placed on the rejected list. After considerable talk it was carried by a small majority. The Kirtland was considered the

earliest variety we have. The Purple Cane was highly spoken of and was regarded by Mr. Downing and others as the *farmer's raspberry*, and one that pays best for market purposes.

Blackberries—Nothing new or important was brought to light in regard to the different varieties of this fruit. After some discussion the New Rochelle and Dorchester were permitted to retain their places on the list.

Gooseberries—None but the American seedlings from the Houghton were named. Of these the Downing's Seedling was regarded the best, and was added to the list.

Grapes—The Taylor was first introduced. A box of the fruit was sent to the Convention by Judge Taylor, of Kentucky, but from want of experience in packing they were so much injured by heating as to destroy their flavor. The subject of the name, whether Taylor or Bullitt should be adopted, after some discussion was referred to the Committee on Synonyms. A long list of other varieties was brought forward which occupied the attention of the Convention for a considerable time. Many of these varieties are comparatively new, and will require larger experience in the various sections of the country before their merits can be fully determined; none of them, however come up to the Delaware in its high promise. Rogers' Hybrids, a considerable number of new seedlings, produced by a Mr. Rogers, of Massachusetts, by artificial crossing of American with foreign varieties, were introduced. The result of this effort is so remarkable that we shall make it the subject of a separate article in some future number of the *Valley Farmer*.

PEARS.

As on former occasions, the pear occupied the general attention of the Convention, and the merits of a long list were brought forward, and we regret that we have not room to report in full the various opinions expressed by the members.

The closing session of the Convention was devoted to the subject of

Pear Culture—Diseases of the Pear—Preparation of the Ground—Pruning, &c. &c.

A number of experienced cultivators gave their views and experience upon these subjects, but with nothing strikingly important. All concurred in the importance of deep and thorough preparation of the soil, and of clean culture, particularly for dwarf pears. The specimens exhibited clearly proved the value of this, and afforded the clearest evidence of the rapid progress that has been made in the culture of fruits within a few years.

For the convenience of our readers we publish the entire list of the various fruits recommended by the Society both for general cultivation, and those that promise well. As we have before stated, the list stands just as it did at the former session, held in New York, in 1858. To the list that Promise Well, all varieties that were added at the present session are placed in *italics*.

APPLES.

FOR GENERAL CULTIVATION.—American Summer Pearmain, Autumn Bough, Baldwin, Benoni, Broadwell, Bullock's Pippin, Carolina June, Cogswell, Danver's Winter Sweet, Early Harvest, Early Strawberry, Fall Pippin, Fameuse, Gravenstein, Hawley, High Top Sweeting, Hubbardston Nonesuch, Jonathan, Lady Apple, Ladies' Sweeting, Large Yellow Bough, Melon, Minister, Monmouth Pippin, Porter, Primate, Rambo, Red Astrachan, Rhode Island Greening, Roxbury Russet, Smith's Cider, Summer Rose, Swaar, Vandevere, Wagoner, William's Favorite (except for light soils), Hay's or Wine, Wine Sap.

Apples Promising Well—Buckingham, Bonum, Canon Pearmain, Early Joe, Fall Wine, Fornwalder, Genesee Chief, Jeffries, King of Tompkins County, Keswick Codlin, Limber Twig, Maiden's Blush, Mother, Pomme Royal, Pryor's Red, Rawles' Janette, Smoke-house, Stansil, Summer Queen, Summer Sweet Paradise, White Pippin, White Winter Pearmain, Willow Twig, Winter Sweet Paradise, Winthrop Greening or Lincoln Pippin, Willis' Sweeting.

APPLES FOR PARTICULAR LOCALITIES.—Canada Red, *Æsopus* Spitzenburg, Newtown Pippin, Northern Spy, Yellow Bellflower, Ribston Pippin.

For Gardens.—Garden Royal.

PEACHES.

FOR GENERAL CULTIVATION.—Bergen's Yellow, Crawford's Early, Coolidge's Favorite, Crawford's Late, Early York *serrated*, George IV., Grosse Mignonne, Morris' White, Early York large, Hill's Chili, Large White Cling, Madeleine de Courson, Teton de Venus, Old Mixon Free, Old Mixon Cling.

Promising Well.—Chinese Cling, Columbia, Carpenter's White Freestone, Gorgos, Susquehanna, Heath Cling for particular localities.

PEARS.

FOR GENERAL CULTIVATION.—Ananas d'Ete, Andrews, Bartlett, Belle Lucrative, Beurre d'Anjou, Beurre d'Arenberg, Beurre Diel, Beurre Bosc, Beurre St. Nicholas, Beurre Clairgeau, Beurre Gifford, Beurre Superfine, Brandywine, Bloodgood, Buffum, Cabot, Dearborn's Seedling, Doyenne d'Ete, Doyenne Boussock, Doyenne d'Alencon, Flemish Beauty, Fulton, Golden Beurre of Bilboa, Kingessing, Howell, Lawrence, Louise Bonne de Jersey, Madeline, Manning's Elizabeth, Onondaga, Osband's Summer, Paradise d'Automne, Rostiezer, Seckel, Sheldon, St. Michael Archangel, Tyson, Urbaniste, Vicar of Winkfield, Winter Nelis, Uvedale's St. Germain (for baking).

On Quince Stocks.—Beurre Superfine, Beurre

Hardy, Buffum, Belle Lucrative, Belle Epine Dumas, Beurre d'Amalis, Beurre d'Anjou, Beurre Diel, Beurre Langelier, Catillac, Duchesse d'Angouleme, Doyenne d'Alencon, Easter Beurre, Figue d'Alencon, Glout Morceau, Louise Bonne d'Jersey, Napoleon, Nouveau Poiteau, Rostiezer, Soldat Laboureur, St. Michael Archangel, Urbaniste, Uvedale's St. Germain (for baking), Vicar of Winkfield, White Doyenne.

Promising Well.—Adam, Alpha, Bergen, Beurre d'Albert, Beurre Gris d'Hiver Nouveau, Beurre Keunes, Beurre Langelier, *Beurre Montgeron or Frederick of Wertemberg*, Beurre Nantais, Chancellor, Colins, Compt de Flanders, Comtesse d'Alost, Conseiller de la Cour, Delices de Hardenpont de Belgique, Dix, Duchesse d'Orleans, Duchesse de Berry d'Ete, Emile de Hyste, Epine Dumas, Fondant de Charneuse, Fondant de Comice, Fondant de Malines, Hinkle, Hosen Schenk, Hull, Jalouise de Fontenay Vendee, Kirtland, Lemon, Lodge (of Pennsylvania), Merriam, Niles, Nouveau Poiteau, Ott, *Omar Pacha*, Philadelphia, *Poire des Nonnes*, Pinneo (Boston), Pius IX., Rousselette d'Esperon, Steven's Genesee, Sterling, Striped Madeline, Theodore Van Mons, *Uwehlad*, Van Assene (Assche), Walker, Zepherine Gregoire.

PLUMS.

FOR GENERAL CULTIVATION.—Bleeker's Gage, Coe's Golden Drop, Green Gage, Jefferson, Lawrence's Favorite, Lombard, Monroe, Purple Favorite, Prince's Yellow Gage, Reine Claude de Beval, Smith's Orleans, Washington, McLaughlin.

Promising Well.—Bradshaw, Duane's Purple, Fellenberg, General Hand, German Prune, Joe's Washington Seedling, Pond's Seedling, River's Favorite, St. Martin's Quetche, White Damson.

CHERRIES.

FOR GENERAL CULTIVATION.—Belle d'Orleans, Belle Magnifique, Black Eagle, Black Tartarian, Coe's Transparent, Downer's Late, Early Purple Guigne, Governor Wood, Elton, Early Richmond (for cooking), Graffion or Bigarreau, Knight's Early Black, May Duke, Reine Hortense.

Promising Well.—American Amber, Bigarreau Monstreuse d'Mezel, Black Hawk, Great Bigarreau of Downing, Napoleon Bigarreau, Hovey, Rockport Bigarreau, Kirtland's Mary, Ohio Beauty (for special cultivation).

RASPBERRIES.

FOR GENERAL CULTIVATION.—Fastloff, Franconia, French, Knevet's Giant, Orange, Red Antwerp, Yellow Antwerp.

Promising Well.—American Red, *Belle de Fontenay*, Cope, Catawissa, *Hornet*, Thunderer, Walker.

BLACKBERRIES.

FOR GENERAL CULTIVATION.—New Rochelle, Dorchester.

STRAWBERRIES.

FOR GENERAL CULTIVATION.—Boston Pine, Hovey's Seedling, Butt's New Pine, Longworth's Prolific, Large Early Scarlet, Hooker's Seedling, Wilson's Seedling.

Promising Well.—*Jenny Lind*, Genesee, Lebanon, McAvoy's Superior, Scarlet Magnate, Walker's Seedling, Triomphe de Gand.

CURRENTS.

FOR GENERAL CULTIVATION.—Black Naples, May's Victoria, Red Dutch, White Dutch, White Grape.

Promising Well.—Cherry, Fertile de Pallua, Imperial Yellow, Versailles, White Gondoin.

GRAPES.

FOR GENERAL CULTIVATION UNDER GLASS.—Black Damascus, Black Hamburg, Black Frontignan, Black Prince, Chasselas de Fontainebleau, Red Chasselas, Cannon Hall Muscat, Grizzly Frontignan, White Frontignan, White Muscat of Alexandria, White Nice, West's St. Peter, Zinfandel.

Out Door Culture.—Catawba, Concord, Delaware, Diana, Isabella.

Promising Well.—*Out Door Culture.*—Hartford Prolific, Logan, Rebecca, Union Village.

GOOSEBERRIES.

FOR GENERAL CULTIVATION.—Crown Bob, Early Sulphur, Green Gage, Green Walnut, Houghton's Seedling, Ironmonger, Laurel, Red Champagne, Warrington, Woodward's Whitesmith.

APRICOTS.

FOR GENERAL CULTIVATION.—Breda, Large Early, Moor park.

NECTARINES.

FOR GENERAL CULTIVATION.—Downton, Early Violet, Elruge.

NOTES ON FRUITS.

In some sections, the present year, fruits of various kinds have been unusually abundant, and in the greatest perfection; even old trees far advanced in decay have exhausted their remaining energies in maintaining an excessive quantity of fruit. In our travels, through the agency of numerous friends, and from our own grounds, we have had repeated opportunities of testing and judging the comparative quality of many of the leading varieties of fruit. We do not propose now to offer anything new on the subject, but merely to make a few random notes on some of the kinds that strike our fancy most favorably, which may serve in some degree, as far as they go, as a guide to those about planting trees, &c.

APPLES.

Porter—This is a New England fruit, known in the Boston market, and succeeds generally in the South and West. It is a remarkably fair fruit, of large size, of a conical form, ripening in September. The specimens we have examined the present season are fully up to the standard of best both in size and flavor. This variety

should be embraced in every orchard of one hundred trees.

Gravenstein—There are few handsomer apples than the Gravenstein; it possesses a high, aromatic flavor; the flesh is crisp, tender and juicy, and may be recommended to those who are not familiar with its character. As its name indicates, it is of German origin.

English Codlin—We saw this old favorite cooking apple growing in the greatest perfection on the grounds of Charles Downing, Esq., at Newburgh, New York. It is one of the fairest and most tender of all apples when in perfection. It is of a light straw color, of a mild, sub-acid flavor, and so tender and fine grained that we admire it when eating from the tree, and when cooked it hardly has a superior. In color and texture it resembles the Keswick Codlin, another excellent English cooking apple of smaller size, but does not last so long as the latter, which ripens for a period of over two months.

Northern Spy—We were the first to introduce both the trees and the fruit of this excellent apple into the West, now nearly twenty years ago. From the resemblance of the tree compared with the Rawles' Janette, and of its similar habit of putting out late its leaves and blossoms in the spring, we had high hopes of it as a sure bearer, which, in connection with its superior quality, would render it a valuable acquisition to the West. But the tree proved a tardy bearer, and its first fruits ripened prematurely; it was at length feared that its friends would be disappointed in its character, but as the tree acquired age it ceased to make the rapid growth that marks the first ten years; the fruit is greatly improved in size and quality, and promises, as we had hoped, to become one of our finest winter apples.

PEACHES.

Early Newington—We have matured this fruit the present season on our own grounds. It is a large and exceedingly high flavored peach, and one of the most beautiful of the freestones. It is a moderate bearer, which insures a fruit of more uniform quality; the vigor of the tree is seldom impaired by overbearing, yet it is generally sufficiently productive. The skin is white, with a rich, red cheek on the side growing towards the sun. It may be generally recognized among a hundred varieties of white-fleshed peaches by its peculiarity of partially clinging to the stone, though strictly a freestone variety.

Brevort—Though by no means an attractive fruit in appearance, we regard the Brevort as one of the richest and most delicious of American

peaches. It originated in New York on the ground of a gentleman whose name it bears. We have fully proved it in the West, and when grown on warm soil in a favorable season we know of no peach for richness and high flavor equal to it.

GRAPES.

Delaware.—There are now at least fifty new grapes as candidates for public favor; some of them will, undoubtedly, prove valuable acquisitions, while others must fall back into obscurity. We have examined many of these, but until they have further trial we are not willing to risk an opinion respecting their merits in full; but as an exception to this remark we will not hesitate, after another year's experience and extensive observation, to place the Delaware, at present, at the very head of the list of hardy grapes for American cultivation. The great demand for this variety heretofore has induced most cultivators to reduce their vines for propagation to such a degree that the fruit has never before matured so as to show its true character and real value. But the present season we have seen a few vines that have acquired some strength, and though not yet in perfection have produced fruit in size, both in cluster and berry, far exceeding any ever before grown since it has come into public notice. It has been objected by some that it was not a strong grower and productive bearer. Vines that have been properly treated, and not used for close propagation, have this year redeemed this choice fruit from the least suspicion of such a character. We have examined standard vines in large numbers that have made a luxuriant growth, and some of them have borne excessively. So promising has this variety proved that we know cultivators who will, this fall, pull up their entire vineyards of the Isabella and Catawba and give place to the Delaware.

The Rebecca.—We had become almost discouraged lest this fine new white grape should prove too tender for our climate, and we are not now entirely free from doubt on this point; but we have seen vines in various places in some exposed situations as far north as $41\frac{1}{2}^{\circ}$ of latitude that have produced good crops. A few more years will prove where it is best adapted.

We have been presented with a great variety of pears during the past season from numerous friends, and from Dr. C. W. Grant, of Iona Island, with a box containing a large number of the choicest kinds. Upon these and other fruits we must reserve our notes for a future occasion.

New Seedling Everbearing Raspberry.

Our gardeners and fruit growers can hardly imagine what rich treasures are laid up for them, and only waiting the use of the proper means to bring them forth. The process of *artificial hybridizing* is but little practiced among us, yet the few experiments that have been made with grapes, raspberries, cherries, and other fruits, have been attended with the most encouraging success. The most of our new and choice seedling fruits are the result of *chance impregnation* by a combination of different varieties growing in close proximity; but in order to effect more certain and marked improvement it is important to select the two parent varieties possessing in combination the particular qualities we wish to improve and perpetuate.

The editor of the *Ohio Cultivator*, in alluding to his visit to "a curious old nurseryman—born to the business from old nursery stock"—by the name of B. Griggs, New Lexington, Ohio, gives an account of a new seedling raspberry that he has produced by experimenting in cross fertilization of the Ohio Everbearing raspberry, and propagating from the seeds, he has finally succeeded in producing a superior fruit, which is described as *large, juicy and very sweet*, even at a late period of the season. They begin to ripen quite early, and continue to set and ripen every day till frost cuts them off in the fall. Mr. G. calls it the *Daily-bearing Raspberry*. There is scarcely a limit to the improvement of our fruits, if only the proper care is taken to propagate new seedlings judiciously crossed.

THE ANNUAL MEETING OF THE MISSOURI FRUIT GROWER'S ASSOCIATION will be held in St. Louis, commencing January 8th, 1861. On many accounts this will be the most interesting and important meeting yet held by the Association.

DR. JOHN A. WARDER, of Cincinnati, has signified his intention to be present, and several other eminent horticulturists and pomologists are expected. Let every member be in attendance and bring his best specimens of fruits and wines. Let all fruit-growers, not members, do likewise, and we will have a profitable meeting.

Those who cannot attend are requested to send samples of fruit or wine by express, or otherwise, to the care of N. J. Colman, VALLEY FARMER OFFICE, St. Louis. They will be duly acknowledged, named, and reported on.

Illinois fruit-growers are especially invited.

N. J. COLMAN, President.

DR. L. D. MORSE, Cor. Sec'y.

Missouri exchanges please copy.

[Written for the Valley Farmer.]

The New Grapes in our Climate.

BY GEORGE HUSMANN.

When, a few years ago, the grape mania commenced and new seedlings of marvelous excellence (at least so said their originators), appeared in all quarters of the Union, I collected all I could get hold of, with the intention to try them all here, and keep only such as proved really valuable. In this undertaking I had three different aims in view, namely:

1. To find the healthiest vines, those varieties which suffered least from mildew and rot, and were also the hardiest;

2. To get a variety of the best grapes for wine making, so that a variety of wines, of all colors, of different flavors, aroma, and body, could be profitably made, so that all palates could be suited;

3. To obtain a variety of the best market and table grapes, from the earliest to the latest, of all colors and different quality, so as also to be able to suit the palate of each individual.

With this object in view, I have collected thus far about 90 of the most lauded varieties, grafted them on to strong Catawba vines, and had about 40 varieties fruiting this season. At the same time, Messrs. Michael and William Poeschel collected all they could get, so that we have had about fifty varieties fruiting here this summer, of which about thirty-five had the first fruit. As it may be interesting to some of your readers to hear how the new comers behaved themselves, I will let them pass muster in your columns, and give descriptions of them. I have in former issues given my experience in regard to Norton's Virginia, Herbemont and Concord, and it would therefore be superfluous to reiterate it. I will only mention that they have, this season, surpassed our highest expectations; they are fixed facts with us here, and we would no more try and do without them in a vineyard, than try to live without air to breathe in. Any vineyard without either of the three is incomplete.

The following have fruited for the first time here with us:

Delaware—Is called the best of all American grapes, wherever tried, and came fully up to its reputation here. Of two grafts of last year, in bearing, one with Mr. Michael Poeschel, and one with me, each had over 40 bunches. Bunch, small, but generally shouldered and compact; berry, medium, oblong; skin, thin, translucent, pale flesh color, with an exquisite bloom, very sweet and juicy, with an excellent flavor; ripe 28th of July; vine, moderately vigorous, but very healthy and hardy, very productive; will not propagate from cuttings. Promises to become the most valuable wine grape yet tried.

Cunningham—Although this grape has been cultivated here for a number of years, it has been noticed but little; less, perhaps, than it deserves, as it certainly makes an excellent wine. Bunch, medium, very compact; berry, below medium, purple, with lilac bloom, very juicy and of spicy, agreeable flavor, without pulp. Makes a wine of great body, and of a very rich bouquet, resembles good Madeira, but of a finer flavor; vine, a rampant grower, not subject to

mildew and rot, but variable in productiveness, producing sometimes very heavy crops, sometimes hardly anything; somewhat tender; ripe 10th of September.

Hartford Prolific—Ripe 15th of July, and is the earliest good grape I have tried so far; bunch, long, loose, sometimes shouldered; berry full, medium, round, black and sweet, with strong but not disagreeable musky flavor; a pleasant table grape, and may make good wine; vine, a vigorous grower, hardy, healthy, and very productive; may be a very valuable market grape, as it ripens so early.

Blood's Black—Earlier than the foregoing, which is its chief recommendation, as it is much inferior to it in quality. Berry, full, medium, black, pulpy; bunch, medium, only worth cultivating on account of its extreme earliness; ripe 10th of July; vine seems to be productive and hardy.

Northern Muscadine—Bunch, small but compact, shouldered; berry, full, medium, round, brownish red or chocolate color; skin, thick; flesh, moderately juicy, with strong musky flavor, but very sweet; vine, a strong grower, healthy, and hardy, productive; ripe 1st of August.

North Carolina Seedling—Bunch, medium, somewhat loose; berry, large, oblong, black, pulpy, but sweet, and of agreeable flavor; skin thick; resembles Isabella somewhat, but the berry is larger, of better quality, and ripens more equally; vine, a strong grower, somewhat subject to rot, moderately productive; ripe 5th of August.

[To be continued.]

THE CONCORD GRAPE.

This variety of grape is fast becoming the most popular of all known kinds for general garden or vineyard cultivation. The Delaware, Diana, Rebecca, and other popular varieties are all good; but some of them bear very small fruit, while others are "shy" bearers, and do not produce a good crop oftener than once in three years.

The Concord is a grape that cannot be made to fail to bear abundantly, unless the vines be pulled out of the ground or cut off. The principal difficulty is that the vines overbear. We have a vine now in our garden, five years old, which we allowed to set about one thousand bunches, which grew finely till the grapes were about half grown, when it was evident that the load of green fruit was too much for the roots to sustain, and nature took the thinning out, which we ought to have done, into her own hands, by causing one-third of the crop to shrivel up and drop off, selecting portions of nearly all the bunches.

We are not sure but we ought to be indicted for cruelty to the vegetable kingdom, in over-tasking so generous and free a vine; but we shall not be guilty of the like again.

The quality of the Concord grape is generally considered quite equal to the best ripened Isabella, while it is nearly double the size of that variety, when not in an overbearing state, and

ripens two weeks earlier. In no case has it ever failed to ripen in any Northern State, or the Canadas, so far as we can learn.

As a market berry it has no equal, as the berries all ripen at the same time upon the bunches, which is not the case with other kinds, and they hang on with remarkable tenacity.—[*Rural American*.]

Ripening of Winter Pears.

EDS. VALLEY FARMER:—The above was the subject of a discussion lately introduced before the Cincinnati Horticultural Society, by Gen. M. S. Wade, an experienced amateur pomologist, of Cincinnati, who gave his experience as follows, with some fine specimens of fruit to illustrate his remarks: Until within the last year or two he had not been successful in his management of winter pears. When he kept them in his cellar they were insipid, flavorless, and rotted; if he put them in his upper rooms they shriveled. He had for a year or two past adopted the plan of gathering his fruits by instalments, or at intervals of ten days or two weeks; he spread them on a dry floor for three or four days, then carefully packed them in boxes or barrels, and kept them in a dry cool cellar. When he wished to mellow and ripen them he would bring them for a week or ten days into a warm upper room. By this process he found he could ripen them in succession and much extend the time of using.

Mr. Heaver (Chairman of the Fruit Committee), thanked the General for introducing this subject; it was just in season, and he would give his fellow members the benefit of his experience. For a number of years he was fully impressed with the belief that our climate was not adapted to the perfection of winter pears; supposed it was owing to our warm, dry fall weather which hastened the fruit to maturity too rapidly, scarcely affording time for elaborating and developing the saccharine quality. More mature experience has forced him to modify these conclusions, by satisfying him that it is not in the climate being unfavorable for developing the finest qualities of our winter pears, but that our failures may be attributed to a wrong system in our treatment after gathering; and he was now perfectly satisfied that the principal essentials to enable us to enjoy the luxuries of luscious pears through a long winter season, are based on a few simple rules: 1. Provide the right kind of varieties. 2. After treating them as recommended by Gen. Wade (viz., spreading them on a dry floor in a dry airy room), to 3. Keeping them in a low, dry temperature; and, 4. Bringing them into a close, warm temperature, say 65° or upwards, a few days previous to use—the time will probably vary according to the period to which they have been kept; and, lastly, though perhaps more important than any of the preceding rules, is to handle carefully; for if bruised they will decay, no matter what course may be pursued in their management. Although the foregoing was the result of his own personal experience, he was glad to be able to inform the Society that they were confirmed by

the opinions of the able Belgian pomologist, Mr. BERCKMANS, the friend of VAN MONS, as communicated to Dr. WARDER, in reference to the Passe Colmar, Vicar of Winkfield, &c.

So confident do I feel that we are now on the right track to manage *Winter Pears*, that instead of dissuading my friends from planting such, as I have formerly done, I intend to test all the varieties that I can procure with good character as to quality.

I have a few specimens of some varieties by me, which I will endeavor to send you samples of, that you may advise your readers from practical test.

Wishing the *Valley Farmer* success in its mission,
I am yours, WM. HEAVER.

[Written for the Valley Farmer.]

PRUNING THE GRAPE VINE.

We were much gratified on reading some remarks by Mr. Carew Sanders, on the question of "Long or Short Pruning of Grape Vines. Which is Best?" in a late number of the *Valley Farmer*.

Mr. S. has mooted a subject which has engaged the attention of the writer for years, and which becomes to us one of vast importance, as the time has now come in which we must take a stand upon this point. Its importance will be seen from the fact, that, in St. Louis county alone, over one hundred acres have this year been planted in the grape vine. And, from evidence on hand, we feel convinced that from two to three hundred acres will be under the amount throughout the State. In respect to these acres, the coming spring is the decisive period for determining the mode of training to be adopted. Hitherto, in the words of Mr. Sanders, we have followed too "exclusively the example set by our worthy German vine dressers who bring with them the ideas and methods of planting, pruning &c., that they have been accustomed to in Fatherland, and never once think of change, but practice the same close pruning, close planting, &c. on our strong and robust growing varieties of grapes, planted in a rich, deep and fertile soil * * * * * that they have been accustomed to in their weak, poor and rocky soils, on the steep declivities, where high culture is impossible."

In view, then, of the necessities arising from the very extensive culture of the grape in our State, it becomes of the utmost importance to get some fixed method of training and pruning that will meet the wants and indications of the soil, climate and vine in our State. We do not ask for a thoroughly national system, this is too much for us to hope. A truly American system might entangle us with too many conflicting ideas. What we want is one that is adapted to *Missouri*. It is true that it is only by extended experience and observation in all the localities, soils, &c., and with all the varieties of the grape, that we can ever approximate to a perfect system: time, through some such instrumentality as the State Fruit Growers' Association, can alone do

that. But, as these two hundred acres of vines must be attended to *immediately*, we must adopt some method; and, as some who have planted largely have absolutely no method, but are anxiously desiring information upon this point, we will hazard a few remarks that may tend to put the mind in a way to decide which method to adopt. We have been preparing some views upon this subject, and may, during the winter months, get some wood cut illustrations that will tend to simplify the subject.

Upon the question of pruning depends the distance apart to set the plants and whether to train upon poles or trellis. Now, what objects have we in view in pruning the grape vine at all? 1. To regulate the growth of the vine, so as not to have its growth determine to its extremities and be beyond our reach, or become weak and straggling. 2. To induce the sap to form fruit instead of wood and foliage. 3. To balance the amount of fruit with the capacities of the vine, so as neither to exhaust the vine or deteriorate the fruit. 4. To keep up a constant supply of bearing wood. 5. To secure the proper amount of shade and ventilation, so as to maintain the whole in a healthy condition. These are some of the most important items we have in view in pruning; and the answer to the question, How can we *best regulate the sap*? will answer all the others.

This brings us to consider the mode of training, and we take it for granted that some method of renewing the bearing wood of the vine forms an essential feature of every system. Mr. Sanders states that, "It appears that some of our Herman friends have already decided in favor of the short and against the long system of pruning. But then we know that some of the Cincinnati professors cast mysterious and pregnant reflections on the practices of the *savans* of Herman." It gives us pleasure to know that some of the most intelligent savans of Herman have struck out from this short pruning system. Mr. George Husman, in his valuable essay on the culture of the grape in Missouri in the March Number of the *Valley Farmer*, page 89, says, in talking of the second winter after planting: "The next winter stakes should be provided. Here, again, opinions differ, some preferring simple stakes, others trellis. *The latter is undoubtedly the best, and also the cheapest, if well made.*" We italicize. In this essay Mr. H. assumes that the trellis is the only truly correct method as he treats of that alone; and in his own vineyard this is the method followed. The fan form may be given as the one he uses. The trellis mode is the one he would unhesitatingly recommend and practice, and to it the State Fruit Growers' Association have committed themselves by incorporating this essay of Mr. Husman's with their transactions, and recommending it.

In my opinion that method known as the THOMERIC, meets in the most perfect manner all the wants and indications of the garden, vineyard and arbor; is alike well adapted to the single vine on the house front in the city, and the vineyard of a thousand acres. Among its many advantages it requires but few vines to the acre; it can

be most perfectly adapted to high or low training; to rich or poor soils; it can be gradually developed with the development of the vine; it gives the most perfect control of the sap; it secures the most complete and economical renewal of the wood, and the most perfect shade and ventilation; and it is the simplest of all methods to learn and practice, and is, in our opinion, in every respect the system best adapted to the soil, climate, and circumstances of Missouri.

We conceive this is the key to the successful cultivation of what will stand forth in the future AS THE GREAT STAPLE OF MISSOURI—THE GRAPE VINE. AMATEUR.

Meramec Horticultural Society.

THURSDAY, November 1st, 1860.

The twenty-third monthly meeting was held at the house of Mr. J. S. Seymour, Eureka. President McPherson, in the Chair. The minutes of previous meeting were read and approved.

Mr. N. J. Colman suggested the propriety of obtaining a library for the benefit of the Society; made a few appropriate remarks on the importance of the measure, and moved the appointment of a committee to take the matter into consideration and report a plan to the Society. The motion received a second, and it was stated that the subject had been brought up previously and some objections had been offered, but those objections had, in a great measure, ceased to exist.

The resolution was adopted, and the following committee appointed, viz: N. J. Colman, T. R. Allen, Dr. L. D. Morse.

REPORT OF THE VEGETABLE COMMITTEE.

Exhibited by J. S. Seymour, specimen of common red sweet potato, very large and fine. Also, well matured and fine samples of white Neshannock, English fluke and long pinkeys. This pinkeys has the appearance of being the same variety which was largely cultivated a few years since on the Columbia bottom, Illinois, and was called grafted pinkeys. It was not considered a first-rate table potato. We have observed it this fall, intermixed in various fields of this vicinity, and find that it was introduced with seed obtained from the North. We have found, upon trial, that as a table potato, it is far superior to what we considered the same variety as grown upon the famous Columbia Bottom.

T. R. ALLEN, Chairman.

FALL AND WINTER PLOWING.

The subject for the day, was then taken up.

Dr. Morse said, there were several advantages to be gained by fall and winter plowing. First, during those seasons, the work could often be done when the ground was in good condition, and when farmers had much more leisure than at other seasons. Second, the weeds, grass, stubble, &c., could be buried in the soil, where they would be rotting during the winter, thus becoming, in a degree, converted into nutriment for the crop of the following season. Third, a vast number of insects in a dormant state, would be disturbed in their winter quarters and destroyed. Fourth, the most important benefit to be derived, is the turning up to the surface, and the exposure of the lower portions of the soil to the action of the elements during the winter.

It is well known that rocks impart their character to the soil they occupy, and that rain-water will dissolve to a certain extent, rocks, gravel and sand. We might, at first, suppose that the amount so dissolved would be very trifling, but careful chemical experiments have proved that an important quantity of fertilizing materials are obtained from those substances

by the action of rain water. Still greater quantity is obtained from the same source by the action of frost, or by the freezings and thawings of winter.

Clays and all tenacious soils are disintegrated, pulverized, and rendered in better condition for supplying plant food, by the action of frost. Another important consideration is, that the soil is broken up and mellowed so as to be capable of absorbing the rains that fall during winter; while, if the ground is compact, much of the rain-water runs off, carrying with it portions of the soil, and the fertilizing properties which the water contains.

Mr. Votaw said he had observed that corn on land which had been fall plowed, made a much better crop. He had a small piece of ground which was sowed in wheat last fall, the wheat winter killed and he sowed it with oats in the spring. The oats were better than on land not fall plowed. All fall plowing should be deep, —the deeper the better. In spring we are hurried, and not likely to plow so thoroughly as we can in the fall. Would bury weeds and grass deeply so that they would not be turned up by the spring plowing. Shallow plowing caused the soil to wash away and the land is sooner worn out.

Dr. Beale would like to know whether it would be best to turn vegetable matter under as deeply as it would be desirable to plow.

Dr. Morse thought that in case the land was sub-soil plowed, he would prefer having the vegetable matter buried at a medium depth.

Mr. N. J. Colman said it was not advisable to recommend fall and winter plowing indiscriminately. It is not advisable to plow porous, sandy soils in the fall. Such a soil cannot be kept too compact in winter. If loosened by plowing, they suffer loss by rains. Nor should we plow very light soils on hill-sides, unless we can reach clay. They are too liable to wash badly by the rains. In heavy clay soils, great advantages are derived from fall plowing, and more advantage is derived from sub-soil plowing in the fall than at any other time. The trench plow is the best implement for this purpose. It is a plow which is calculated to run very deeply, and having a narrow mold board brings up a portion of the sub-soil to the surface, where it is exposed to the frost. Prefers the trench plow to the sub-soil plow, which only lifts up the clay and leaves it so that it can soon settle back to its original compactness. In the fall the teams are fresher, and there is more leisure to plow well. Winter plowing is better for destroying insects. It is much better to plow deeply where soils are liable to wash.

Dr. Morse said his preference had always been for the sub-soil plow, which did not bring the sub-soil to the surface. He disliked the practice of inverting the soil, as had been practiced by many in trenching for vineyards and dwarf pear orchards, and thought trench plowing too much like it. The surface roots of trees, and plants were most important to the health and vigor of the tree or plant, because they occupy soil that is most exposed to atmospheric influences, and that soil should be finest and richest.

President McPherson had thought much in regard to the two plows in question, and was in favor of the trench plow. If we use it in the fall, and expose part of the sub-soil to the influences of winter, then plow again in the spring, he thought it better than the sub-soil plow. Thinks we can plow hill sides in the fall, generally, with safety, if it is properly done with the trench plow. Some of his hill sides so treated in the most unfavorable season we have had, were less injured than ever before. Every one knows, who has tried it, how much easier and better the whole season's work is, after deep fall plowing.

Dr. Beale recollected that the season of the President's experiment was a very trying one.

Mr. Votaw thinks it most important to plow hill sides in the fall, so as to prevent loss; they wash worse if they are not plowed.

Mr. Colman said, if you can sub-soil them, it will

do. The trench plow is invaluable in worn out lands. Thought Dr. Morse had misunderstood his remarks. He did not recommend burying the rich surface soil, and turning up all the sub-soil to the top. He only had reference to raising a portion of the sub-soil, and mixing it with the top soil. Then it is exposed to the action of the atmosphere during winter, and becomes thoroughly pulverized, enriched, and gradually converted into surface soil.

Dr. Morse admitted that he saw very little objection to the trench plow for fall use.

The subject adopted for discussion at the next meeting, was: "The best season and method of clearing and preparing new land for fruit planting."

The President announced that the next meeting would be held at the school-house in Allenton, on Saturday after the first Thursday in December, and reminded the members that the annual election of officers would occur at that meeting.

T. R. ALLEN, Secretary Pro Tem.

AVOID THE TREE PEDDLER.

K. K. Jones, Esq. of the *Quincy Herald*, thus speaks under this heading:

We—the agricultural editor—had intended to have warned all our readers to avoid all tree peddlers as they would the itch, and were forcibly reminded that the semi-annual infliction of this class of humbugs and swindlers was just in season, by one of the tribe seeking to pass off some of his wares upon ourself. These fellows are industrious, oily-tongued, plausible, and stick to you like a tick, and you have either got to give them an order for trees or a peremptory one to leave. They will tell you that *Eastern* grown trees are the best for *Western* soils, and that they know all about what varieties are the best adapted to each particular locality, or any other falsehood that will aid them in getting an order for trees.

Well, they get an order, we will suppose. After Mr. Peddler and the men he has employed to perambulate the country get all the orders they can, away goes the head peddler to a Rochester or some other Eastern nursery and begins to pack the trees and plants to fill them. We will suppose that K. K. Jones has been green enough to give an order for various kinds of fruit trees and some of the high priced grape vines, like the Delaware, Diana or Concord, the prices of which are to be from one to two dollars. No person can tell one grape vine from another at one and two years old, when not in leaf, and not one in a thousand until it bears fruit. Mr. Peddler can buy an *Isabella* or *Catawba* vine by the quantity for five cents. Such temptation is too much for the honesty of all such fellows, and the result is the customer gets swindled with a thing he never ordered. Many kinds of fruit trees can be bought in quantities, in all large nurseries, at half the price of the most popular sorts. The result is they purchase the cheapest and label them to suit the order received, and by the time they come into bearing Mr. Peddler has wisely selected another sphere of action to carry out the same game.

PREPARE your ground by deep plowing for planting trees early in the spring. Dig the holes where the trees are to be planted during any open weather. Let the frost have a chance to work upon the clay.

A NEW HYBRID FRUIT.—S. Mc. Dowell, of Franklin, Ohio, thus describes a new fruit lately brought into use in that part of the State:

An entirely new species of fruit has sprung up among us, that seems to unite the characteristics of both the wild plum of our woods and the red nectarine peach, and all that is known of its origin is the following: A gentleman near Franklin, in his garden, planted some stones of the red nectarine peach, which, on germinating and throwing out their leaves, one among them was discovered of very singular formation, and like nothing else the gentleman had seen. He let it grow, and when transplanting his nectarines, left it standing in his garden, where it has fruited for the last three years, the fruit being of a fiery red color, the size of the nectarine, and nearly round in form, and of most delicious taste, the pulp being soft, juicy and rich, and, to my taste, superior to any of the plum family. Its proprietor referred it to myself for a name, and I at once saw from the peculiarities of the tree and fruit that it was a hybrid which owed its origin to a wild plum and nectarine peach, but could not venture to publish my opinion until I saw that the nectarine and plum had been hybridized by Dr. Wylie, of Charleston, S. C., he having exhibited the fruit at the South Carolina fair, and taken a premium as a reward of his success.

This is a new fruit of exquisite beauty and finetaste, ripening through September, and thus far has been free from the curculio punctures—a thing that cannot be said of our gages, except where hogs run about the trees. The tree inclines to run to top, with clean, smooth branches, free from spurs. A leaf I send herewith, also a short one from the wild plum, that you may see that its length occupies that middle space we would suppose it ought between the foliage of its parents.

BEST VARIETIES STRAWBERRIES.—Orange Judd, editor of the *American Agriculturist*, thus gives his views of the best varieties. He says:

"There are a number of improved varieties of strawberries any one of which is vastly superior to the common wild kinds. It is desirable to have in every garden as many as two or three kinds to give variety and also a longer bearing season. For a single sort, everything considered, we should recommend Wilson's Albany Seedling. This is a large, beautiful berry, a great bearer, endures carriage well, and is now so abundant that the plants can be got almost anywhere, from \$1 to \$1.50 per hundred. It is rather too acid for our liking, but the prolific bearing makes up for the extra sugar required. Next to the Wilson's Albany we like Hooker's Seedling. On our grounds this is a free grower, bears very well, is a pretty large berry and the flavor is excellent. It has done better with us this year than ever before. Jenny Lind: about the same may be said of this as of the Hooker, though it does not bear quite as freely. The above are all 'perfect plants,' and require no other kind to fertilize them. Hovey's Seedling: this is a beautiful berry, long known,

and in many localities has given excellent satisfaction. It is a good market berry, as from its size, form and color it makes a fine show. It is a pistillate and therefore requires some staminate or perfect kind growing near to fertilize it. Longworth's Prolific: a 'perfect variety,' is a free grower, bears abundantly, berry large, but not equal to Wilson's Albany in productiveness, beauty of form, and not superior to it in flavor. We have a dozen other varieties in cultivation, but are not prepared to positively recommend any of them to those who grow strawberries for their own use only. The foreign varieties, Trollope's Victoria, Triomphe de Gand, and a few others promise well. Those named will furnish a sufficient variety of good, well tried kinds."

The Apiary.

HINTS FOR THE MONTH.

BY J. W. QUINBY.

Having determined which stocks you will winter, it now remains to decide as to the best method of doing this. Here in N. Y. we think it best to house them, but in milder climates it is not so necessary. Strong colonies with plenty of honey will do well under almost any circumstances: such may be left in the open air; care must be taken however to exclude the mice; and to secure thorough ventilation the hives should be slightly raised from the stand, but not so high as to admit of mice, and holes should be opened in the top. Set a cover over them in such a manner as to allow the moisture to escape and at the same time to prevent rain or snow from beating in. Unless care be taken to ventilate, the moisture from the bees will collect on the combs and the sides of the hive, forming frost in cold weather; and, in warm weather, besides causing the combs to mold, it will drip down upon the bottom and in some cases so accumulate as, when frozen by returning cold, to perfectly close the joint between the hive and the stand. In such a case, of course, the bees will smother unless supplied with air by means of apertures above. There should be a hole in the front of the hive about half-way from the bottom to the top, but let it be nearly covered with wire-cloth, leaving only sufficient space for one bee to issue at a time. This is to provide against the mice; and I would here suggest, that all you trap of these vermin, will be kept out of mischief in the most effectual way. Thus prepared, good stocks will winter without special protection. If they should chance to be buried in snow, so much the better, for it will keep out the cold and not injure them. Of course a bleak exposure will be avoided. Weak stocks, such as would survive with proper protection, will very likely perish if left out of doors. In very cold weather the cluster of bees in a hive is small and compact, but with a rise in the temperature, it expands, and the bees search for honey which they could not reach before. Now, let the mercury fall suddenly and the outer ring of bees will be left by the contracting mass. In this way weak stocks are soon reduced. More populous colonies maintain a greater degree of heat by reason of their greater numbers. That bees wintered in the open air may occasionally spread themselves on their combs and reach the honey in the more remote parts of the hive, they should be placed where, in fair weather, the Sun will strike them a little time every day. Some bees may come out and perish in consequence, but the advantages will more than compensate for the loss.

The apartment in which bees are wintered, when housed, should be dry and dark. A little crevice ad-

mitting the smallest ray of light is sufficient to occasion a very serious loss. Dampness molds the combs. If the temperature can be kept above the freezing point the bees will be the better for it, besides consuming less honey. If possible, have a double wall, including a dead-air space, around them. Fifty or sixty hives will generate animal heat enough to warm a room of considerable size. A dry cellar will do quite as well to winter bees in, as a room above ground. Make it perfectly dark, ventilating in such a manner as to admit the air without the light. Make holes in the tops of the hives so that a current of air may pass freely between every two combs. It is doubtless the best way to open holes in the tops and then invert the hives on little blocks of wood or stone. Do not allow them to touch one another, otherwise the bees of different stocks will mix together. Where a large number is to be accommodated, shelves may be arranged in tiers and the hives inverted upon them. Those that use the moveable frames may effect thorough ventilation by slightly raising the loose honey-board above them, leaving the hives right side up.

In order to make the period of confinement as short as possible, the bees should be allowed to fly out in the open air as long as the weather will admit, but after having put them away they ought not be disturbed. Entering occasionally with a light is not so objectionable as the jarring caused by opening and shutting doors, and frequent walking on the floors above or near the bees. Such disturbances as these not only occasion the loss of bees by causing them to wander from the hives, but more honey is consumed under such circumstances.

St. JOHNSVILLE, 1860.

Domestic Department.

A SIMPLE PUDDING.—Boil a quart of milk, cut up some bread in small pieces and soak them in the milk for about half an hour; then add a tablespoonful of Indian meal, and a piece of butter the size of a walnut; sweeten well, and put in nutmeg and other spices. Bake about twenty minutes.

RICE MILK.—A cheap, pleasing and nourishing preparation may be made as follows:—Take as much rice as you need for the occasion; spread it on a table to pick out the bad grains, and wash it clean. Put it into your saucepan, with as much water as will cause the grains to swell; then add the milk, stirring it well, taking care that it does not at any time stick to the bottom of the pan. Put in two or three bits of cinnamon, a little grated nutmeg, and a little salt. Sweeten with sugar. If you wish to make a more choice dish of the above, add some well cleaned currants or mix up a batter with a well-beaten egg or two, and some wheaten flour.

EXCELLENT PUDDING.—Take half a pound of raw carrot, finely scraped, half a pound of mealy potatoes, well mashed, half a pound of flour, half a pound of dried currants, well cleaned, and about six ounces of finely chopped beef suet. Mix these well together. If the pudding be intended for boiling, no further moisture will be required; if for baking, an egg well beaten and a little milk must be added. Boil or bake the same length of time that would be required for a batter pudding of the same size. Serve with a little melted butter, either plain or sweetened.

A DRINK FOR THE SICK.—Put a half gallon of water upon the fire, and when boiling have ready four pippin apples (quite ripe); cut each apple into eight slices, without peeling them, throw them into the water, which keep boiling until the apples are quite soft. Pass the water through a sieve, pressing the apples gently against its side, but not rubbing them through it. Add enough honey to make it a little sweetish, and drink lukewarm.

TO CLEAN SILK.—Grate raw potatoes to a fine pulp in water and pass the liquid matter through a coarse sieve in another vessel of water; let the mixture stand undisturbed till the fine white particles of the potato are precipitated; then pour the mucilaginous liquor from the fecula, and preserve it for use. The articles to be cleaned should be spread upon a table, and washed with a sponge dipped in the potato liquor, until the dirt is perfectly separated, then rinsed in clear water several times. Two middle sized potatoes will be sufficient for one pint of water.

ECONOMIC SOUP.—Get two pounds of leg or shin of beef, cut it into pieces, and boil gently in six quarts of water, for about an hour and a half. Then add a pint of split peas, a pound of mealy potatoes, and a head of celery cut small. Slice a few onions, and fry them in a little fat, dredging them slightly with flour till they are nicely brown; then stir them into your soup, and add salt and pepper to your taste. Let the whole boil until the celery, &c. is thoroughly tender, and the peas well broken in; then serve up, either with or without toasted bread.

BAKED BEANS.—Few people know the luxury of baked beans, simply because few cooks properly prepare them. Beans, generally, are not cooked half long enough. This is our method: Two quarts of middling sized white beans, two pounds of salt pork, and one spoonful of molasses. Pick the beans over carefully, wash, and add a gallon of boiling hot soft water; let them soak in it over night; in the morning put them in fresh water and boil gently till the skin is very tender and about to break, adding a teaspoonful of saleratus. Take them up dry, and put put them in your dish, stir in the molasses, gash the pork, and put it down in the dish, so as to have the beans cover all but the upper surface; turn in boiling water till the top is just covered; bake with a steady fire four or five hours. Watch them; and add more water from time to time as it dries away.

NEW CEMENT.—Professor Edmund Davy lately read a paper to the Royal Dublin Society, on a cement which he obtains by melting together in an iron vessel, two parts (by weight) of common pitch, with one part of gutta-percha. It forms a homogenous fluid, which is much more manageable for many useful purposes than gutta-percha alone, and which, after being poured into cold water, may be easily wiped dry, and kept for use. The cement adheres with the greatest tenacity to wood, stone, glass, porcelain, ivory, leather, parchment, paper, hair, feathers, silk, woolen, cotton, &c.

TO CLEAN PAINT THAT IS NOT VARNISHED.—Put upon a plate some of the best whiting; have ready some clean warm water and a piece of flannel, which dip into the water and squeeze nearly dry; then take as much whiting as will adhere to it, apply it to the paint, when a little rubbing will instantly remove any dirt or grease; wash well off with water and rub dry with a soft cloth. Paint thus cleaned looks equal to new, and, without doing the least injury to the most delicate color, it will preserve the paint much longer than if cleaned with soap; and it does not require more than half the time usually occupied in cleaning.

INDELIBLE INK.—The milk that flows from the sumach, when a limb or leaf is broken off, makes the best indelible ink that can be used. In a short time it becomes a jet black, and can never be washed out.

TO DESTROY RATS.—A contemporary says that a lady in that city, whose house became infested with these varmints, gives the simple remedy of dissolving copperas in water: make it strong, and sprinkle in the most prominent places, and they will leave at a two-forty rate, and no mistake. She tried it successfully and has not been troubled with rats or mice since. It is simple, and will not cost much to try it.



Physical Training in Common Schools.

Teachers and physicians are beginning to see the great error which prevails in educating children and youth. Formerly a precocious child was pressed forward in his labors, exercising only his brain at the expense of the development of the bones and muscles of the body, and the consequences were that before he had reached the age at which he should have begun his studies his brain had expanded to a degree altogether out of proportion to his body; his digestion had become impaired, leaving but a mere wreck that finds relief only in the grave.

In most of our schools no systematic arrangements are provided for the exercise and development of the muscular system, and the more studious youth is inclined to neglect the ordinary sports of many of his class-mates for his books, and before he is qualified to enter upon the business of life his digestion and health fail and he soon passes on to a premature grave. We notice that the Superintendent of the Boston Schools recommends the adoption of regular gymnastic exercises in connection with the ordinary branches of school studies. This is all well enough in its way, or at least much better than no physical exercise. But how much better would it be if youth could be taught to believe that labor through life was honorable, and in order to qualify every one for his station in society, and to impart health of body as well as of mind, it is better to engage in some useful labor in connection with his school studies rather than perform the various evolutions of the gymnasium that result in no ultimate profit. If in the place of the gymnasium, work-shops and gardens were established, in connection with every school, boys might be taught early habits of industry, and would acquire a fondness for mechanical and horticultural pursuits which would become useful to them in after-life, whatever would prove their condition, while at the same time the body would acquire equal strength and development with the mind. Elevate the

dignity and character of labor to the standard of the professions in the minds of youth, and they would as readily labor at some useful branches as they would engage in the senseless exercises of the gymnasium. When overtaxed with the labors of the mind and enfeebled in body in consequence, we have sometimes made it a rule to ride a certain number of miles daily on horseback, but the exercise soon became irksome, because there was no special object ahead to interest or occupy the attention, but when engaged in some mechanical or horticultural labor there is something interesting and exciting in the anticipation of the creation or growth of something useful or profitable as a reward for the labor bestowed.

The American people are rapidly degenerating in bodily strength and vigor, which results from the disregard of the essential laws of our being, and but for the incorporation of the blood of some of the more hardy nations of Europe into the veins of the native Americans, much of the original constitutional strength of our forefathers would be forever lost.

We are glad to see the introduction of a course of physical training into our common schools, and hope it may speedily lead to the establishment of the true system of exercise that will result in pecuniary profit, while at the same time it will establish in youth a love for useful and profitable employment.

[Written for the Valley Farmer.]

A BRIGHT FACE.

It was a gloomy, disagreeable November day; cloudy and damp without, dull and cheerless within; human nature had arrayed itself in all its selfishness, aboard the street cars, upon the pavement and around all the warming places; every face was in keeping with the weather, and cold replies, stony looks, and fretful frowns seemed the order of the day.

It was my misfortune to have a little shopping to do, and I found that much-tried class of persons—shop-keepers—in anything but an amiable mood. I was in search of an article seldom kept at retail stores, and I was once or twice reminded in no very gentle tones that "such things are found at the manufacturing establishments;" but, as I was not prepared for a trip "down East," I chose to investigate a little farther and so went from shop to shop, meeting with cold indifference at one place, a curt reply at another, and occasionally a little spice of impertinence; and I was really getting disheartened, not so much at my failure, as at the frowning aspect of things in general, and the ill-nature of shopmen in particular.

Had not I always vindicated their cause whenever I had heard them censured? and did not I write an article for *The Ledger*, during the

great "Shopping Debate," setting forth their grievances and the patience with which they bore them, pronouncing them almost universally amiable and polite, and imputing the blame to their customers if they were ever otherwise? in short differing so much from all the other letters upon the question that—it was not published! I was glad, now; I would never take up their cause again; and I put on a freezing expression, that I might be in keeping with the crowd, and boldly entered another establishment, expecting to meet more of the stereotyped frowns, which seemed to have descended with the cold mist, that was falling over the city.

Had the Sun suddenly broken out from among the masses of heavy clouds, and bathed all nature in a glow of soft, warm light, I should not have been more surprised than I was at the vision of smiling loveliness that came forward to welcome me. Ladies are either the best, or the worst of sales clerks—and this one was of the former class—active, vivacious, affable and obliging, she was ready to give me all the information she could; was sorry she could not furnish me with what I wanted; made some cheerful comments upon other topics, and entirely chased away my reserve, and the unkind resolutions I had just formed. The frost melted, my heart warmed beneath the genial rays of those kindly beaming eyes, my good nature was perfectly restored, and I resolved never to indulge in harsh censure and selfish coldness, or wear a frown again, as I gazed into the sweet, bright face of that young woman; and, though I failed in my object, and concluded to give it up, and go home, I left with a light heart, and a smiling face, for it was impossible to look upon such a countenance and not reflect its cheerful glow.

That bright face—blessings on it! it lingered around me as I went out into the cold unpleasant street, hovered between me and every temptation to ill-nature, and banished with its sunlight every cloud of gloom. And, yet, it was not a beautiful face; an artist would never choose it for a model; I cannot myself tell the color of the eyes, or whether the features were regularly formed or not; but I know that a beautiful soul beamed forth from it, and that it was lovelier in its genial glow of kindly sympathy and amiability, than any combination of "heavenly eyes," "golden tresses," "ruby lips," pearly teeth," "peach-bloom cheeks," and "marble brow;" unless the possessor of said attractions united with them a pure, warm loving heart.

Yes, that sweet face haunts me like a pleasant dream, and I have framed it with a wreath of sober reflections, and set it up in the picture gallery of my memory; and when I feel peevish, and inclined to give expression to harsh judgments, cold rebukes, or bitter sarcasms, I check the angry word, and gloomy frown, and turn to meet its radiant happy smile.

I have often been cheered by those passing sunbeams, and in my heart I bless each hope-beaming countenance, whether it is muffled in a manly beard, half concealed by a matronly veil, glowing with the roses of youth, or set in a frame of childhood's sunny curls.

In every situation of life we should strive to cultivate cheerful and kind emotions; we are better, and happier ourselves, and the joy-beaming smile that steals up from a warm, genial heart illumines the plainest features with a lovely light that is caught and reflected by each passer by; and the desponding are cheered, the timid encouraged, the fretful soothed, the feeble invigorated, and all made happier, without perhaps dreaming of the cause of a change in their feelings.

Wear a cheerful face, at home and abroad. I have heard of persons who put on smiles in society, and reserved all their frowns for home use—I do not believe I could be deceived by an assumed smile; such *simpering* false-hearted blandishments are simply *disgusting*: give me a face that is a true index of a heart, throbbing with generous emotions—that is the *bright face* for me.

St. Louis, Mo.

NELLIE.

[Written for the Valley Farmer.]

THE IGNIS FATUUS.

Who has not heard the story, true in part, and in part fable, of a light sometimes seen gliding over bog and meadow, popularly called, "Will-with-a-wisp," "Jack-with-a-lantern," or briefly, "Jack-a-lantern;" but by the learned named "Ignis Fatuus;" meaning in Latin, "foolish fire!" Talked of for centuries by the learned and unlearned; and many times seen by the peasant and philosopher; yet it is to-day as little understood by both as the great meteor that passed over the earth in July last, and so filled the world with wonder.

Superstition has clothed them in mystery; and whenever seen by the shepherd or peasant they are to them a thing of dread; and the courageous hunter, who had just stood fearlessly in combat, face to face with the bear or catamount, belated at evening, turns his eyes away from the mysterious phantom, fearing lest he should be allured into a slough or quagmire.

They are supposed to possess the power to move, now here, now there, then up and down; and it is also believed that they cannot be approached, but will move away if followed, and thus beguile the adventurous pursuer into swamp or fen, leaving him bewildered to find his way when the morning dawns. When seen by the benighted traveler at a distance before him, he fancies it to be a lamp cheerfully shining from a cottage window, and directs his steps towards it. His eye intent on the light, and his mind upon the rest and good cheer that await him there, he sees not the marsh at his feet until he is fairly in the mire. He passes on, hoping soon to come safely out on the other side; but on looking again he fancies the light has changed its position; and he now becomes conscious that a Jack-a-lantern has led him astray; and every further exertion to extricate himself only plunges him deeper into the bog. Giving up in despair, he waits with fevered impatience until by the light of the morning he can see where to direct his steps.

It is true that they commonly appear on marshy grounds and damp places; but Jack is

not as mischievous a fellow as he is supposed to be. All these stories of his tricks are but the result of superstitious fancy and ignorant credulity.

Let us now draw boldly near to him and discover a few facts with regard to his nature.

On a calm, misty summer's night, when a boy, in passing by a "burying ground," I saw a light upon the grassy slope; now near and bright, then distant and dim, seemingly flickering in the still air; now a little nearer, then quickly receding; now up a little, and again low in the grass. I had often heard of the Jack-a-lantern, and it immediately occurred to my mind that this was one. I watched it for a long time, and felt a strong desire to follow it, but the remembrance of the stories that I had so often heard of its leading persons into mire and quicksands deterred me. But I gained a little courage when I reflected that there were neither marsh or quicksand within the hallowed inclosure. But then, again, the graveyard was a solemn place, and the dark stillness of the night added not a little to the solemnity, and my courage flagged again. I stood a while longer watching its movements, then calling a little philosophical reasoning to my aid, I determined to go and see what I should discover. At first, as I advanced it seemed to come towards me, but as quickly retreated, apparently a great way off. But perceiving that it did not rise with the slope of the bank, I began to suspect that the apparent movement was an optical delusion, and so followed on. I had gone but a little way when it seemed to come forward and settle down just before me on the ground. I stooped down to behold the wonder. At the edge of a headstone of a grave, made a few months before, there was a small opening in the ground, apparently the burrow of a mouse; and from this opening arose the light that had attracted me to the spot.

It was now, divested of all imaginary appearances, a pale, wavering light, flickering with every movement of the air, sometimes several inches in height, bright in contrast with the surrounding darkness; again waning low and dim, scarcely above the orifice from whence it issued, yet never entirely extinguished; often bursting out in full vigor, and as often diminishing again to a feeble light, as of a candle burning low in its socket.

The light was obviously phosphorescent, appearing like that often seen in the dark when a friction match has been struck. The cause (without doubt) the phosphoretted hydrogen gas evoked by the dead body in the grave.

This gas is also often present in marshy grounds, arising from the decay of reptiles, and perhaps other animals on or beneath its surface; and the "ignes fatui" seen in such locations are without doubt of the same nature, and arise from the same source as that above described.

But the question will naturally arise, Whence the illusory appearances of their moving hither and thither, and dancing up and down? A few moment's investigation, standing a few yards away, when the light blazed at a distance, answered this question conclusively—large and bright it seemed to be where it really was. As

the flame diminished it appeared to flee away, the apparent distance being in proportion to the smallness of the light; and though this fact was known the illusion was complete. The dancing and skipping motions also appeared as real. The eye becoming wearied by its continued gaze, with no other object to steady the sight, vacillates in its socket, and thus the eye is made to dance and hie about.

I regret that it did not occur to me to apply my hand to the blaze to ascertain if there was sensible heat present. It is probable, however, that there is but little or no heat evolved by these lights; the illumination arising from a very slow combustion of the gas with the oxygen of the atmosphere. B.

[Written for the Valley Farmer.]

WELCOME TO WINTER.

BY MARY A. GARY.

Winter is coming, we know he is nigh,
Casting his shadows on Autumn's fair sky;
Harvest ingathered, the flowers all gone,
Cheerily now do we welcome him on.

What though he carries the verdure away,
Makes the bright woodland boughs cheerless and gray;
What though his frosty chains bind the swift stream,
Though in his coronet icicles gleam?

Beauty he scatters wherever he goes;
Snow-flakes like jewels around him he strews;
Diamond-like fetters he casts o'er the lake,
And for the forest a gem-wreath doth make.

Stern, icy winter, thou bringest to me,
Emblems of life when its summer shall flee,
Oh! may my heart while its moments are bright,
Gather its harvest, prepare for its blight.

BRIGHTON, ILLINOIS, Nov, 10th, 1860.

A TRUTHFUL AND CHEAP BAROMETER.—Take a clean glass bottle and put in it a small quantity of finely pulverized alum. Then fill the bottle with spirits of wine. The alum will be perfectly dissolved by the alcohol, and in clear weather the liquid will be as transparent as the purest water. On the approach of rain or cloudy weather, the alum will be visible in a flaky spiral cloud in the centre of the fluid, reaching from the bottom to the surface. This is a cheap, simple and beautiful barometer, and is placed within the reach of all who wish to possess one. For simplicity of construction, this is altogether superior to the frog barometer in general use in Germany.

BETTER THAN GOLD.—A parent may leave a patrimony to his son, but how soon may it be mortgaged! He may leave him money, but how soon may it be squandered! When he leaves him a sound constitution, an unblemished reputation, a good education, and an inward abhorrence of vice, in any shape or form, these cannot be wrested from him, and are better than thousands of gold and silver.

By experience we learn wisdom.

Editor's Table.

End of Volume Twelve.

Our work for 1860 has drawn to a close. The Twelfth Volume is finished. Our readers can now pass judgment on our labors. We have zealously striven to furnish a work which would be creditable to ourselves and to the cause of Western Agriculture. How well we have performed the task it is for others to determine.

We are pleased to be able to announce that our list of subscribers has continued to grow throughout the year—that there has been a steady, healthy increase in the number of our readers. This has been owing probably to two or three reasons: First, that the cause of Progressive Agriculture in the West and South-West is rapidly advancing, and, consequently such a journal is demanded; and, secondly, the "Valley Farmer" being the only Agricultural Journal published in the heart of the Great Valley it is natural it should receive the increased patronage which this progressive spirit demands. But we believe more is owing to the real merits of the journal itself. Its readers and friends have found it to be reliable in its teachings, and have not hesitated to recommend it, and to forward the names of subscribers to it. Thus its list of readers has been increasing and will continue to increase while it remains worthy of patronage.

But a new year and volume are before us, and, in accordance with our infallible rule, we must cease sending to one and all who do not promptly renew their subscriptions. The amount of each subscription is so small, that we cannot possibly send agents about the country to collect delinquent subscriptions. We hope, therefore, that every reader will now promptly renew his subscription, and send such additional names as he can to swell our list of readers.

We think we have perfected such arrangements for the new volume as will greatly increase its interest and value. We hope we shall not have to draw a mark over a single name on our subscription book—but that we can all travel along together another year hand in hand, cultivating a still stronger interest in the noble cause to which our journal is devoted.

THREE NEW SUBSCRIBERS.—Any person who will send us the names of three new subscribers and three dollars, shall receive the fourth copy for 1861 free of charge. Who is there of our readers that cannot get three of his neighbors to subscribe, and thus get the "Valley Farmer" free?

THE ILLINOIS STATE HORTICULTURAL SOCIETY.—The fifth annual meeting of the above Society will be held at Bloomington, Illinois, commencing on Tuesday, December 18th, and continuing four days.

This is a very useful society, and all engaged in the culture of fruit should attend. The amount of information they will obtain will be much more than an equivalent for the expense.

MEMPHIS TENNESSEE FAIR—LARGE PREMIUM.—The Premium of \$1000 was awarded, at the late fair held in Memphis, to Scythian, owned by R. A. Alexander, Esq. of Woodburn Farm, Kentucky.

Arrangements for Volume Thirteen.

We have made arrangements for our next volume which we think will give great satisfaction to our readers. In addition to the full editorial corps of the past year, we have secured the services of Dr. L. D. Morse, a fine writer and a sound agriculturist, who will contribute to the various departments of our journal. We have also been promised monthly "Notes for the Farm," by one of our best Western farmers. He will notice the various work to be done for each month of the year, and the best method of doing it. From his large experience as a farmer, and his ability as a writer, our readers may expect to be greatly benefited by his suggestions.

Mr. George Husman, of Herman, a well known and successful grape grower, will furnish Monthly Notes for the Vineyard, noticing the various operations in the vineyard for each month, and giving directions for their proper performance. Those who are at all interested in the culture of the grape will find these articles to be of great value.

Mr. Chas. Betts, of Michigan, a successful apiarian, will furnish an article for each number on Bee Culture, giving directions for their proper management each month of the year.

Mr. Carew Sanders, of St. Louis, will continue to furnish Monthly Notes for the Orchard and Garden, which have given much satisfaction for the past two years.

In addition to the assistance above mentioned, we shall have our usual amount of aid from contributors from the various parts of the West. We sincerely believe that our next volume will be by far the best we have yet issued. We have endeavored to make such arrangements as we thought would please our readers, and hope we have been successful in accomplishing this object.

MISSOURI STATE AGRICULTURAL CONVENTION, to be held at Jefferson City, Thursday, January 3d, 1861. Farmers, Rail-Road men, and all others interested in the improvement of Missouri are earnestly requested to attend this convention, and give it their influence. The call is made by direction of the Mercantile Horticultural Society, based upon favorable responses from County Agricultural Societies and prominent agriculturists of the State, to the circular recently issued on the subject.

The principal object will be the organization of a MISSOURI STATE BOARD OF AGRICULTURE, and also to take into consideration any other matters regarding the advancement of the agricultural interest of the State.

It is very desirable that every county society in the State should send delegates to this Convention. The establishment of a State Board, with the results and interests that should, and doubtless will, follow and grow out of it, are matters of interest to all parts of the State, and second in importance to no other. Let every portion of the State, then, be represented, so that a State Board, and its relations with the county societies, may be established on the best and surest foundation.

L. D. MORSE, Chairman of Committee.
ALLENTON, Mo. Nov. 15th, 1860.

Missouri Exchanges please copy.

TWO JOURNALS FOR ONLY \$1.50 PER YEAR.—The "Valley Farmer" and the "Home and School Journal" will be sent to the same address for one dollar and fifty cents. The "Journal" should be read by every family. Every son and daughter in the West that can read should peruse it. It will labor to educate the mind, to cultivate a taste for sound reading, to set forth proper aims in life for the youth of both sexes, to inculcate a sound morality as the basis of success in every department of business. Its articles will not only be instructive, but full of interest. If knowledge is valuable, if mental culture is desirable, if a taste for good reading should be cultivated—then give this enterprise your patronage. It is said, "An idle brain is the Devil's workshop"—better have the brains of the youth of the land engaged in mental improvement, by perusing works devoted to this purpose, than engaged in something we know not what—for the brain will not be idle. Give it good nourishing food, and its growth will be healthy. See Prospectus of "Home and School Journal," in this number.

HOME AND SCHOOL JOURNAL.—The Editor and Proprietor of the "Missouri Educator," in turning over to the "Home and School Journal" its subscribers, thus speaks of the conductors of the new enterprise:

"The transfer has been made to NORMAN J. COLMAN, Esq., the able Editor and Publisher of the "Valley Farmer," who will henceforth publish an Educational Journal, edited by Prof. J. L. TRACY. Neither of these gentlemen need an introduction to the people of Missouri. The success of the "Valley Farmer" under Mr. COLMAN'S management, is a sufficient guaranty that no stone that can add to the value of an educational journal, will be left by him unturned; while Prof. TRACY'S familiarity with the educational affairs of our State, his large experience as an educator, his present calling, which brings him into immediate contact with the teachers of the State, his ability as a popular writer, and his great energy and untiring industry, fit him especially for its editorial duties."

AMERICAN SCHOOL MANUAL, BY J. L. TRACY.—This is a book of about two hundred pages, containing nearly two hundred pieces of choice music, and between three and four hundred songs and hymns, selected from the productions of the ablest professors of music, and from the rich treasury of lyric poetry. The work has been prepared by PROF. TRACY, a distinguished teacher and educationist, who has been identified with the school interests of the West for more than a quarter of a century. It is admirably adapted to the wants of the school-room, the music class and the social circle. It is a St. Louis manufactured book, made in the best style, and retailed at the astonishing low price of 25 cents. It is used in the city Normal School, the head of our public school system, and is being generally introduced into schools and seminaries throughout the State. It is warmly recommended by the State Superintendent and other school officers and teachers, and with our desire for moral and intellectual, as well as material progress, we should like to see it in every school and family in the country.

The manual is for sale by the booksellers of the city, or it will be sent, post paid, for 25 cts., by addressing J. L. TRACY, JEFFERSON CITY, Mo.

TO CLUB AGENTS.—We hope you will lose no time in forming your clubs. The January No. will be issued about the 20th of this month, and we would like to mail it to our subscribers as soon as issued. Recollect that in forming your clubs you are not confined to one post-office. We can as easily send the "Farmer" to a dozen post-offices as to one. Be careful to give the post-office address of each subscriber. You can send the names you obtain at any time—need not wait for the list to be complete.

Splendid Premiums to Club Agents!

The proprietor of the "Valley Farmer" being determined to extend its usefulness, and wishing to reward those who will take an active part in increasing its circulation, offers the following magnificent Premiums to those persons who will send the Largest Lists of Subscribers to the "Valley Farmer" for 1861, before the first of April next.

Such fine Premiums have never before been offered by the proprietor of any agricultural journal, and he hopes they will induce subscribers everywhere to undertake the formation of clubs in competition for the Premiums here offered.

As one of our chief objects in offering these Premiums is to obtain New Subscribers, and thus extend our list of readers, we have determined that the procuring of one new subscriber shall be equal to the renewal of two old ones—thus 10 new subscribers shall count as many as 20 old subscribers. This will give Agents in sparsely settled districts, where there are but few subscribers, a fair chance of competing with those in districts where the "Farmer" is already known and circulated.

Our object is to give fair play to all—no undue advantages to any—and then those who exert themselves most will be rewarded with the best success.

PREMIUMS!!

\$150.00.

To the person sending the largest Club, we will send **ONE OF MANNY'S COMBINED REAPERS AND MOWERS,**

worth **ONE HUNDRED AND FIFTY DOLLARS.** This machine is too well known to need any comment from us. It is manufactured by Messrs. KINGSLANDS & FERGUSON, of St. Louis, of the very strongest and best materials and in the best manner, and is warranted to give satisfaction.

\$135.00.

To the person sending the next largest list, we will send **GROVER & BAKER'S SEWING MACHINE,** worth **ONE HUNDRED AND THIRTY FIVE DOLLARS.** This will be the best and highest priced machine that is manufactured by that enterprising Company. Grover & Baker's machines stand deservedly high, and are admirably adapted to all classes of Family Sewing. Simple in their construction; run quietly and easily; use both upper and lower spools as bought from the store, and therefore do not require the time and trouble of re-winding. These machines are too well known in this region to require any recommendation from us, having taken the First Premium at the last St. Louis Fair, and at several county fairs in various parts of the State. Prices range from \$40 to \$135.

\$100.00.

For the next largest list, we will send **ONE OF SINGER'S SEWING MACHINES,** worth **ONE HUNDRED DOLLARS.** This machine is everywhere favorably known. The Messrs. Singer have made colossal fortunes by their manufacture. For the last year they have charged only \$40 for their excellent Family Machine; but their "Letter A" Machine, which has everywhere given the greatest satisfaction, is sold for only \$60, including hemmer, and warranted for three years. Although two sets of hands have worked night and day, yet they have been unable to supply the demand for them. The Singer Machine from the simplicity and power of its construction is able to do all kinds of work, whether heavy or light, and in the most perfect manner. No one who has ever purchased one has regretted it. Edwin Dean, Agent, No. 85 Fourth Street.

\$70.00.

For the next largest list, we will send one of **WHEELER & WILSON'S CELEBRATED FAMILY SEWING MACHINES** worth SEVENTY DOLLARS.

The number of Wheeler & Wilson Sewing Machines sold in 1859 was upwards of 21,000. This speaks more loudly in its favor than any praise we could bestow. It has taken some of the most important First Premiums in the United States. It is admirably adapted to all kinds of family sewing. It is very easy to learn how to use it, and will give entire satisfaction to all purchasers. A. Sumner, No. 133 North Fourth Street, St. Louis, is Agent, and is always pleased to exhibit their merits. Prices vary from \$50 to \$100.

\$45.00

For the next largest list we will send **E. CLARK'S REVOLVING LOOPER DOUBLE THREADED FAMILY SEWING MACHINE**, worth FORTY-FIVE DOLLARS. This Machine is an improvement on the Raymond Machine, and in the hundreds of families where it has been used in Missouri it has pleased all by the ease, beauty and simplicity with which it performs its work. Elias Clark, No. 82 North Fourth Street, St. Louis, is Agent.

\$43.00.

For the next largest list, we will send one of **Robinson's Water Elevators**, with Chain and Cups, for raising water from a well forty feet deep, worth FORTY-THREE DOLLARS. This is the best pump in use—does not freeze, purifies the well and water, thus preventing sickness—and can be used for raising water from any depth—is especially desirable where cistern water is used, as it keeps always clear and pure. W. I. HENRY, St. Louis, Mo. P. O. Box 783, Proprietor.

\$40.00.

For the next largest list, we will send **VANDIVER'S UNION CORN PLANTER**, manufactured by J. W. Vandiver, Shelbyville, Mo., worth FORTY DOLLARS. This is one of the best corn planters manufactured. By the use of a team and two men it marks out the ground and drops and covers two rows as fast as the horses walk.

\$25.00

To the person sending the next largest list, we will send **TREES AND PLANTS**, to be selected from the ST. LOUIS NURSERY, to the value of TWENTY-FIVE DOLLARS.

\$15.00.

To the person sending the next largest list, we will send **Easterley's Hay, Straw and Stalk Cutter**, worth FIFTEEN DOLLARS.

\$5.00.

To the person sending the next largest list, we will send **Agricultural Books**, to be selected from the Catalogue of Saxton, Barker, & Co. to the value of FIVE DOLLARS.

Persons in Missouri and contiguous States, will address "Valley Farmer," St. Louis, Mo.

Persons in Kentucky and contiguous States, will address "Valley Farmer," Louisville, Ky.

The Home and School Journal: A MONTHLY MAGAZINE;

Devoted to the Interests of **Home and School Education, Art, Science and General Literature.**

NORMAN J. COLMAN, Publisher, St. Louis, Mo.

The centers of commerce should become the centers of light; collecting and distributing in tributary districts, not only the fruits of the earth, the wealth of the mines, the products of manufacture, the gold and silver of commerce, and the general results of human skill and labor; but the more valuable fruits that follow the cultivation of mind—the discoveries and inventions of science, the wealth of a pure literature, the

the accumulations of knowledge, the genuine coinage of the brain. St. Louis has advanced from the condition of a small town, the depot of Rocky Mountain hunters and trappers, to the state and position of the great inland metropolis of America, stretching out her hands to grasp the commerce of ten or twelve States, inhabited by as many millions of enterprising people. Whilst her commercial relations bring the city into close connection with the business interests and the domestic wants of a great people; and whilst the political and religious press of St. Louis sends every week its millions of printed sheets all over the great Western Valley, no persistent and successful effort, through the same channel, has yet been made to promote the interests of popular education; to secure improvement in the teaching and management of schools, by waking up a better sentiment amongst both teachers and people; to distribute amongst parents, teachers, and the youth of the country, the teachings of the ablest minds, and to cultivate a pure Western literature. To occupy this most important field, by publishing a periodical that shall be a welcome as well as a profitable visitor at every fireside, is the design of the subscriber in undertaking this enterprise.

For the editorial management of the journal, the Publisher is happy to announce that he has secured the services of Prof. J. L. Tracy, whose long experience as a practical and successful teacher, and whose warm sympathy with the educational interests of Missouri and the West, together with his sound scholarship, fine literary taste, and acknowledged ability as a writer, mark him as the man for this position. He will be assisted in the preparation of original matter by some of the ablest minds and most talented writers in the country.

It will be the great object of both Editor and Publisher to make the "Journal" a first-class Magazine, attractive, useful and instructive to every member of the home circle, as well as to the professional teacher. Especially will it aim to cultivate a taste for reading and the acquisition of knowledge amongst the youth of both sexes, and a considerable portion of each number will be devoted to this purpose. In addition to such matter as will be peculiarly interesting to parents, school officers and professional teachers, the contents of the "Journal" will consist of Short Moral Tales, Sketches of Incident and Adventure in the Early History of the West, Descriptions and Illustrations of Natural Scenery, Incident and Anecdote from the Lives of the Great and the Good, a Brief Synopsis of Passing Events in the World's History, Selected Gems of Prose and Poetry, Items of Intelligence, &c.

Believing that this enterprise will commend itself to the approbation of all right minded persons, whether parents, teachers, or pupils, the Publisher confidently appeals to such, to give their patronage as well as their commendation, to insure its permanence and success.

TERMS—THE HOME AND SCHOOL JOURNAL will contain 32 royal octavo pages to the number, and be issued on the first day of each month, at the office of the "Valley Farmer," in St. Louis. Terms \$1 a year, invariably in ADVANCE. The first number will be published for January, 1861.

To extend at once the circulation and usefulness of the "Journal," the Publisher makes the following offer: Those who may desire to take the "Journal" and "Valley Farmer"—the two periodicals being entirely distinct in their contents, and equally useful and interesting to every family in the country—will be supplied with them both for \$1.50 per year. This proposition is extended to old as well as new subscribers to the "Farmer."

The subscribers to the "Missouri Educator" will be supplied with the "Journal," the Publisher of the former having transferred its books and accounts to the subscriber. Those who are indebted for subscription to the "Educator" should remit the amount to me at once.

NORMAN J. COLMAN.

St. Louis, Nov. 10, 1860.

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